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extension review

United States Department of Agriculture Spring 1987

Diet,
Nutrition
And Health



SPR



Improving Nutrition, Diet, and Health

On the pages of this issue of the *Extension Review* are examples of the well designed programming that has been targeted to the needs of people at the grass roots level. As we assess the future via the Nutrition, Diet and Health Task Force of the National Priority Initiatives, we find the Cooperative Extension System a major force in addressing the public's food and nutrition concerns. It also has unparalleled potential for meeting future challenges and opportunities in food and nutrition education. To better focus the Cooperative Extension System, the Task Force has identified the following critical food and nutrition issues and educational objectives.

Situation

Members of the food system, from producer to consumer, make decisions affecting the nature of the food supply. Decisions reflect changing consumer needs; technological advances in food production, processing, and distribution; and research findings related to food, nutrition, and health. Increasingly, the economic success of the food industry and the nutritional quality and safety of food is becoming intertwined.

New and developing research implicates diet as a possible risk factor in health problems. This has had two consequences: demand for agricultural products has changed, and demand for reliable advice on dietary practices has increased. The nation's rapidly changing demographic picture is another major challenge facing nutrition educators. Foods and diets must meet the needs and preferences of a population that is aging, is ethnically diverse, and is experiencing dramatic changes in family structure and lifestyle.

Issue 1.

Health Problems Related to Dietary Practices and Lifestyle Factors

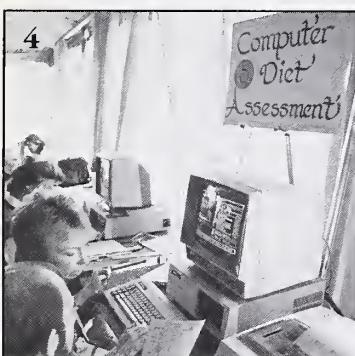
Extension Goal:

Improve the nutritional and health status of the population through nutrition education, resulting in the adoption of recommended dietary practices.

Educational Objectives:

1. Adults and youth will be aware of and follow the practices recommended in *Dietary Guidelines for Americans* in order to achieve and maintain optimum weight and reduce the risk of chronic health problems.
2. Pregnant teenagers and adult females will eat foods to meet their nutrient needs, gain adequate amounts of weight, and receive prenatal care throughout pregnancy in order to achieve an optimum pregnancy outcome.
3. Adults and youth will be aware of and adopt recommended fitness and health promoting behaviors, including physical activity, stress management, responsible self care, and appropriate use of the health care system.
4. Parents and caregivers will follow recommended infant feeding practices and help children establish good food and exercise habits for optimum long-term health.
5. Adult and youth consumers will recognize and use reliable nutrition information and thereby minimize nutritional inadequacies and abuses in foods, diets and supplements.

(Continued on page 47)



Health Fair Shines At Sunbelt Expo	4
Get Heart Smart	8
Nutrition Education With Impact	10
EFNEP—Nutrition Education In Action	11
Guidelines To Eating Right	14
Catalyst For Cooperation	15
DARE To Be You!	16
Dangerous Interactions—Food And Drugs	18
Food, Medicine, And You	19
Dine Out—Dine Healthy	20
Solving The Diet Puzzle	21
Community Fitness Event	22
Poster Promotes Food And Fitness Awareness	23
Florida Focus: Food Flash	24
For The Health Of It	26
The Heart Of The Matter	28
Eating Right Is Basic 2	30
Living With Less Sodium	31
Nutrition Van Go	32
EFNEP: Education Connection For The Hungry	34
Food And Fitness By Mail	36
Irradiated Foods—A Hot Topic	37
An International Agenda In Food And Nutrition	38
Home Food Preservation: Alive In Washington State	41
Fun With Food And Fitness	42
Fitness 7	43
Wellness Workshop—Class Acts In The Classroom	44
Extension Food And Nutrition Programs—A National Assessment	46

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Health Fair Shines At Sunbelt Expo

Extension Review

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Farm equipment rumbled over the demonstration plots. Corporate banners snapped in the breeze over hundreds of exhibition tents. However, for an impressive number of farm families last October at the Sunbelt Agricultural Exposition near Moultrie, Georgia, the real attraction was a mini-health fair coordinated by the food and nutrition staff of Georgia Extension.

The new nutrition exhibit, bearing the slogan, "Your Health Is Our Business—Nutrition Assessment Counseling," attracted almost 1,700 participants during the three days of the South's biggest farm show. At six stations located in part of the Consumer-Family Living area, participants obtained a blood pressure check, a blood glucose reading for diabetes, a height-weight measurement, a cholesterol reading, a diet assessment, and individual nutrition counseling.



"We did not expect the nutrition exhibit to be so popular," says Ann Peisher, Extension state program leader for the food, nutrition and health unit at the University of Georgia. "A phenomenal number of people waited in line—some for as long as 40 minutes for the health assessment tests."

Georgia Extension is one of the major sponsors of the Sunbelt Agricultural Exposition which is moving into its tenth year. The Expo attracts about 500 commercial exhibitors who show

the latest in agricultural equipment to over 200,000 visitors. Extension home economics staff set up the nutrition center as a way to take advantage of an ideal teaching situation.

A Cooperative Venture
To stage the mini-health fair, Peisher and her staff of food and nutrition specialists and county agents worked with the following organizations: the Medical College of Georgia, the



Opposite top: The tent of a mini-health fair coordinated by Georgia food and nutrition staff proves popular with participants at the Sunbelt Agricultural Exposition near Moultrie. Below: Participant discusses a blood glucose reading for diabetes at one of the six health stations. At left: Farmer receives a height-weight measurement; many participants were curious about their ideal body weight.



Georgia Egg Commission, the Georgia Affiliate of the American Diabetes Association, the Colquitt Regional Medical Center, the American Heart Association, and the Moultrie Vocational Technical Training Program. More than 100 volunteers assisted during the three-day program.

While the visitors waited in line for the tests, they filled out data forms to supply demographic information, and family and personal health history. For the counseling session, participants discussed diet and exercise programs with an

Extension home economist or medical nutritionist. The entire process took a few hours, counting computer time for diet evaluation and cholesterol testing.

Volunteers and staffs put in long days trying to keep the lines moving. "I heard few complaints," Peisher says. "I saw job satisfaction mirrored on so many faces. When you get direct feedback from people who appreciate your work, it makes you feel good about what you do."



JoAnn McCloud-Harrison, EFNEP coordinator, agrees with Peisher. She worked the scales and often had to inform participants about their ideal body weight. "Some people were curious about these measurements," she says, "while others were seriously concerned."

Performing A Real Service

Visiting Nurses Association Director Vickie Parker believes a worthwhile service was performed for many participants. "Our test disclosed a number of people who had high blood pressure and were not aware of it," she says. "This test gave us the opportunity to hand out educational material on hypertension, diet, and reducing stress levels. We suggested several people see their doctor."

The Georgia Egg Commission offered a valuable test. With the help of members of the American Egg Board and United Egg Producers, representatives of the commission hooked up the Kodak Ektachem DT-60 Analyzer—a self-contained computer that uses colorimetric slides to measure glucose, cholesterol, and other levels. The estimated laboratory cost for this test ranges from \$25 to \$35.

The analyzers are in use in other states and all test data is fed back to the Egg Nutrition Center to collect a state, regional, and national profile of cholesterol levels.

Extension is in the process of computerizing and analyzing all data collected at each test station and on the biographical sheets. There will be a questionnaire followup to verify how much participants recall and heed advice given at the mini-health fair.

Much of that advice came from the final health station where 564 people participated in a personal counseling session. Betty Gass, Extension agent, Dade County, conducted many of these sessions.

Counseling Sessions

"We had so many questions and many of the answers surprised us," Gass says. "Participants appreciated this service. Some said it was the best thing at the Expo. We feel we made a lot of contact and helped a lot of people."

Peisher says the first thing they pointed out at the counseling sessions was that they could

not diagnose health problems based on a one-day reading. They asked participants to take any advice or measurements "as a flag." "Whenever the tests indicated problems," Peisher says, "we stressed awareness and directed people to their family physician."

Dispensing health advice can be a risky business. Fortunately, the mini-health fair was supported by the Medical College of Georgia and a physician was in the testing area throughout the show.

Clear Goals Necessary

Peisher emphasizes the importance of agreeing about goals when working with multiple outside groups. "You have to be sure the goals are all understood," she says. "Of course, each group will have its own agenda to meet its needs. However, we as the coordinating agency had to be sure all groups agreed on the overall thrust."

Extension wanted to offer a service that could be replicated in the counties. Agents saw the Expo as a model to make health education a segment of local fairs or lawn and garden shows. "Our underlying theme," Peisher says, "is to teach agents how to make a difference in their communities by getting them involved in significant issues. People call our Extension offices all the time with life's little problems—we want them to look to us for help on the big issues as well."

One participant, Virginia Pannell of Sylvester, Georgia, waited in line to visit each station on the last day of the Expo. "I think the nutrition center is great," she proclaimed. "It is why I came to the Expo. Extension is offering a good service. Often, people don't take the time to take advantage of this type of opportunity. I plan to go through all of it." ▲

Opposite top: Participant receives a blood pressure check. Below: The final health stop is a personal counseling session. At left: A computer diet assessment measures glucose, cholesterol, and other levels.

Get Heart Smart

8 Extension Review

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Reviewing program materials for the Healthy Heart Program are Maureen Brew (left), program assistant, and Jennifer Anderson, Extension nutrition specialist, Colorado State University, a creator of the program and its current director.



Eating habits are hard to change!

"For many persons, overconsumption of fat, cholesterol, and salt is tied to long-established eating habits," says Jennifer Anderson, Extension nutrition specialist at Colorado State University.

In response to these and other dietary problems linked to heart disease, Colorado Extension developed the Healthy Heart Program—Eating and Your Heart.

"The program was designed for consumers who are concerned about heart disease and who want to reduce their own risk of developing it," says Anderson, a creator of the program and its current director.

Emphasis On Improving Diets

Healthy Heart focuses on reducing dietary fats and calories, and improving the

overall quality of individual diets. The program is offered to both health professionals and consumers.

"Healthy Heart helps individuals assess and analyze their own health so they can pursue a style of eating that is based on informed choice," says Anderson.

The classes—usually four 2 1/2-hour sessions—teach participants self-monitoring skills, key facts on heart health and nutrition, how to modify recipes, and prepare foods using new techniques.

Employee Wellness Program

In 1986, the city of Arvada sponsored three 6-week programs designed to educate city employees about the relationship between diet and heart disease.

"We chose the Healthy Heart Program after a 3-year search for an employee wellness plan," says Dana Shea, city personnel analyst and spokesperson for the project.

Registered dietitians taught the weekly 2-hour sessions held during the workday.

Approximately 90 of Arvada's 460 employees participated in the program.

Lieutenant Steve Troop of the Arvada Police Department says his blood pressure has gone down and he has lost 23 pounds since participating in the program.

"Step by step through the program and after it is completed, we have had the full support of Colorado Extension," says Shea.

Developing Healthy Heart

Anderson and Extension Health Specialist Susan Gunn developed the Healthy Heart program in 1978. Initially they targeted the program for patients in cardiac rehabilitation but later emphasized the risk to the "hale and hardy Howies" whom Anderson describes as those who think they are healthy but are at high risk for heart problems.

"Because eating habits are hard to change," explains Anderson, "new approaches to this subject were initiated including choosing local people to be program leaders, training these leaders in educational techniques, and dividing them into teams so their time and skills could be pooled, using the Extension network for access to rural and hard-to-reach audiences."

Long distances and limited resources outside the Denver metropolitan area make it difficult for nurses, dietitians, and other professionals to keep abreast of new research in the field of diet and heart disease, according to Anderson.

"Training can, in many cases, provide the updating necessary for these individuals to function as effective educational program leaders," Anderson says.

In 7 hours of formal classroom training, program leaders review basic concepts of nutrition, obesity, dietary fats, fibers, sodium, sugars, nutrient density, and trace nutrients. Anderson presents current research findings on the obesity and heart disease connection, the dietary fat and fat-content-in-blood connection, fibers, and other controversial factors.

Dietary analysis techniques from the Heart Association are explained and the group learns to work with NUTRI-FIT, a computerized food and activity analysis program from Extension, and to organize and present educational programs for lay people.

Financial Support

Initially the Poudre Valley Hospital Foundation and the University of Colorado Health Science Center SEARCH program provided grants to



develop and test program materials. The Colorado Heart Association provided support for 3 years, which facilitated the program leaders' training and development of consumer materials on a statewide basis.

More recently, the Colorado Beef Council provided funds to develop print materials targeted at the corporate sector and to purchase support materials. The National Turkey Federation agreed to support the development of videotapes to train program leaders.

Other funding sources include the Metropolitan Life Foundation, which provided a grant to redesign materials for 7th grade

health, science, and home economics classes. A 4-H unit also is being piloted.

Currently, the Healthy Heart dietary recommendations are being used in a restaurant nutrition education project. In addition, other states have adopted Colorado's program for use in their educational efforts.

"Such avenues expand Extension's impact in areas where people are making decisions about food and their health," says Anderson. ▲

Nutrition Education With Impact

10 Extension Review

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Today Coloradoans need unbiased information and assistance to evaluate the increasing number of public messages on nutrition and health, many of which are disseminated by vested interest groups.

Colorado Extension food and nutrition specialists are working with volunteers, groups, and organizations to meet these needs and maximize the impact of the state's limited Extension dollars.

Fitness And Weight Control

Coloradoans, like Americans across the country, want an easy answer to their weight control problems. This creates a rich breeding ground for misinformation fed to consumers by profit-making interests and sensation-seeking media.

To provide consumers with sound, unbiased information, Extension staff developed a Summary Chart of Weight Reduction Diets. Updated regularly, the chart lists approximately 45 currently popular weight loss diets. Included for each diet are characteristics, good points, bad points, and comments by Extension nutrition specialists.

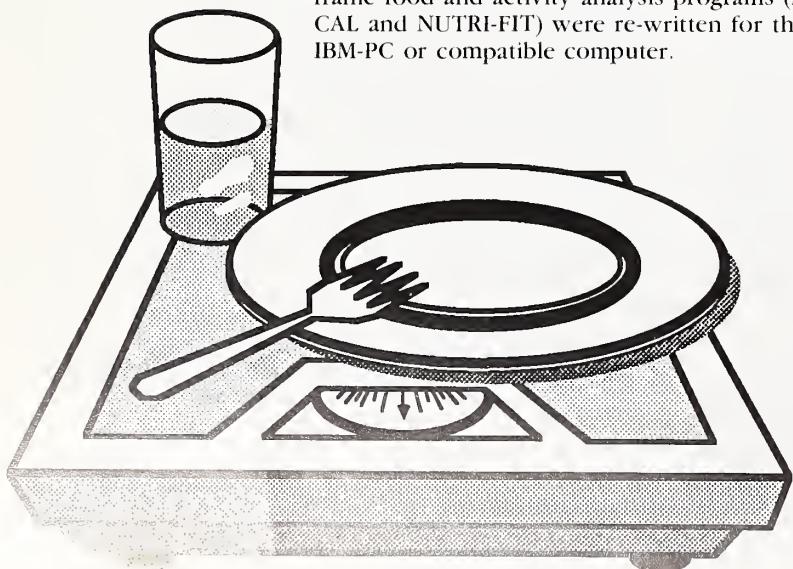
When possible, Extension specialists discuss the diets with their promoters.

Nutrition And Heart Disease

The association between diet and heart disease is of concern to many. Often people need support and assistance to make changes in their diets. For the last several years, Extension's Healthy Heart program offered in Colorado and across the country has addressed this need. (For more information, see the article, "Get Heart Smart" on page 8.)

Information Via Computer

For several years, Colorado has used computers to provide clients with nutrition information. With the advent of microcomputers, the mainframe food and activity analysis programs (NUTRICAL and NUTRI-FIT) were re-written for the IBM-PC or compatible computer.



Extension agents have used the programs at health fairs, schools, consumer group meetings, 4-H clubs, and fitness centers. Also, non-Extension clientele, including dietitians, physicians, food service managers, exercise physiologists, and wellness program coordinators, have purchased the programs.

Safe Food Preservation

Foodborne disease is a major public health problem. In most Colorado counties, Extension is the only local source of personal response to food preservation and food safety questions.

Following the lead of the Master Gardener Program, Colorado, like several other states, developed a Master Food Preserver (MFP) program. The program uses trained volunteers to assist county agents, thereby extending Extension's resources and increasing the outreach of Colorado Extension.

Response to the program has been favorable. Last year, 16 counties participated. Fifty-six new volunteers and 51 veteran MFP volunteers donated some 2,757 hours of service and provided nearly 10,000 consumers with information on safe food preservation methods. Numerous others were reached through the media, booths at farmers markets, and the multiplier effect of information passed from consumers to family and friends.

Expanding Extension's Audience

With more women employed outside the home, an increasing number of men and teens are shopping for family groceries. Extension needs to target food-shopping skill programs to include this broader audience.

Recently, Colorado developed a pilot supermarket point-of-purchase nutrition education program. Extension specialists anticipate that by working through supermarkets, they will reach more men and teens.

A top priority in Extension is to offer programs designed to revitalize rural Colorado. One such effort is a Food Research and Development Center within Colorado State University's Food Science and Nutrition Department. The objective of the Center is to provide technical assistance in the areas of food processing, product development, and food marketing to interested individuals and firms in the state. Extension's role is to provide assistance on consumer needs and desires, trends in food purchasing, and information on product acceptability.

Nutrition specialists see the Center as an exciting expansion of traditional food and nutrition Extension programming that can add value to Colorado-grown commodities and contribute to economic growth throughout the state. ▲

EFNEP— Nutrition Education In Action

Extension Review 11



In 1968, USDA initiated the Expanded Food and Nutrition Education Program (EFNEP), and it was congressionally funded the following year. Extension Service (ES) administers the program, in cooperation with State Extension Services in each of the 50 states, American Samoa, Guam, Micronesia, Northern Marianas, Puerto Rico, and the Virgin Islands. EFNEP is the largest federally funded nutrition education program in the United States, with appropriated funds of about \$60 million for each year since fiscal 1981.

The mandated purpose of the program is to help low-income families, particularly those with young children, improve their diets by teaching them the essentials of nutrition. County Extension home economists train and supervise paraprofessionals, mostly from low-income families, in teaching the basics of good nutrition. These paraprofessionals then recruit low-income homemakers interested in learning more about nutrition. They enroll interested participants through references from other agencies, door-to-door canvassing, and neighborhood contacts. The paraprofessional teaches a nutrition curriculum lesson and enrolls participants in small groups or on a one-to-one

basis. Extension nutritionists and program managers provide support, the educational materials, and the structure needed to implement and maintain the program.

Today, 813 program sites, across the Nation, low-income homemakers with young children and 4-H age youth learn the importance of good nutrition. Currently, 4,185 paid paraprofessionals and 50,924 volunteers teach these adult and youth participants.

About 2.5 million families have enrolled in EFNEP since the program began in 1968. This equates to 10 million family members. Over 6.4 million have participated in the 4-H Youth component of EFNEP.

Families enrolled in EFNEP learn to plan nutritionally adequate meals, to buy food with food stamps which meets nutritional needs within the available budget, to serve meals that are nutritious, and to apply recommended storage, safety, and sanitation practices.



Since its inception, EFNEP has been continuously evaluated to ensure increased effectiveness in carrying out its intended purpose. Annual data collected from operating sites describe the status of the participants and the racial/ethnic composition of homemakers, youth participants, volunteers, and paraprofessionals.

Data collected annually from a sample of homemakers provide more details on family characteristics, the size of the family, and their participation in food assistance programs. Food consumption data are collected by paraprofessionals through the 24-hour food recall method at the time of program entry and exit.

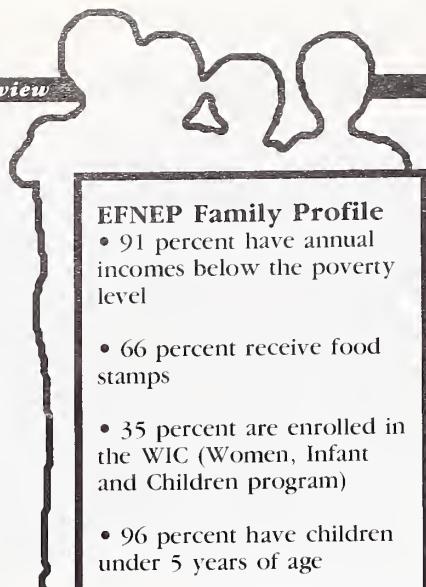
Evaluation Studies

The EFNEP program effectiveness can best be determined by the participants' retention of knowledge and adopted practices. Two recent studies found that participants retain nutrition knowledge and continue their improved nutrition practices. The California EFNEP Evaluation Study (1979-81) showed that the participants' eating habits improved after EFNEP enrollment. In 1983, 2 to 3 years following this evaluation study, a followup investigation was made of the long-term effects of the program in 4 of the original 15 participating California counties. In this instance, 73 EFNEP participants

Nancy B. Leidenfrost
National Program Leader, EFNEP
Extension Service, USDA, with
Contributing authors noted in parenthesis

Left: Betty Milbourn (far left), an EFNEP paraprofessional in Vigo County, Indiana, shares her knowledge of nutritious meal preparation with two homemakers. Right: State EFNEP faculty in Brevard County, Florida, consistently provide training that furthers the group teaching emphasis.

Photographs courtesy of Cooperative Extension, Purdue University, Indiana



EFNEP Family Profile

- 91 percent have annual incomes below the poverty level
- 66 percent receive food stamps
- 35 percent are enrolled in the WIC (Women, Infant and Children program)
- 96 percent have children under 5 years of age
- 63 percent of these children are in the Birth to 2-year-old age category
- 60 percent of EFNEP families are minorities

were studied using the 24-hour food recall (FR). Results show that all of the improvements seen in the original study were still present in the followup study. In milk, protein, and fruit and vegetable consumption, as well as in variety, vitamin A-rich, and vitamin C-rich fruit and vegetables, families retained the improved food practices.

The Orleans Parish, Louisiana, Evaluation Study (1983-86) also indicated that low-income homemakers enrolled in the program improved their dietary practices. Homemakers sustained this improvement in dietary behavior for 6 to 12 months after graduation and at a significant level when compared to entry.

Earlier studies verify these Louisiana findings: Brown and Pessle (1981) and Kateregga (1981) also found that dietary improvements were sustained 1 year after graduation from EFNEP. Dietary behavior changes could be attributed to

education rather than significant differences in age, income, educational level, participation in assistance programs, or family size. The majority of homemakers participated in USDA food assistance programs, and have one to three members in their family. They tend to be below 35 years of age at entry into the program, have less than a 12th grade education, and monthly incomes of \$419.00 or less.

EFNEP Evaluation

The Extension Service and USDA's Food and Nutrition Service conducted a pilot project in 1981, which tested various program delivery concepts and demonstrated that flexibility is possible in delivering the program. Subsequently, innovative methods have been encouraged and are being developed by states.

Findings from these studies indicate that participants prefer more structure in program delivery, that they like a predetermined, regularly scheduled time for the teaching series to take place, that they are likely to sign a commitment statement to complete the program, and that they want teaching sessions more frequently than twice a month. Under these conditions, participants felt more responsibility and often notified the paraprofessional when they could not be available for the teaching sessions.

States are now widely using the national or a state EFNEP curriculum: they teach more frequently, and are graduating families within 6 to 12 months. The use of combinations of delivery methods mainly as a result of educational methodology research has increased effectiveness and efficiency in the program. Multi-delivery methods often begin with the one-on-one and progress to small cluster groups supported by the use of a predetermined curriculum. Some states have tested a combination of one-to-one, telephone, and mailed lessons. These practices are result-

EFNEP Youth Profile

- 61 percent are in the 9-to-13 age category
- 91 percent are in the 6-to-13 age category
- 53 percent are female
- 46 percent of youth live in central cities of over 50,000 population

ing in a larger number of families having an opportunity to participate in the program.

EFNEP Serves Minorities

EFNEP is not unlike other Extension programs, but it has adapted its message to reach low-income families of all ethnic groups. In recent years, many states have made intensified efforts to reach Southeast Asian refugees. California, Oregon, Minnesota, Hawaii, and Virginia report employing Lao-tian, Hmong, Vietnamese, and Cambodian paraprofessionals. As reported by Virginia staff, helping people who don't understand English, food stamps, running water, electric bills, and how to adjust from a rural Asian lifestyle to urban life in Arlington, Virginia, is a special task that takes specially trained people.

International Connections

The EFNEP concept and its program delivery method have demonstrated their effectiveness in projects beyond the U.S. mainland. The Kellogg Foundation funded an Oregon 4-H/Costa Rica 4-S club nutrition project and Margaret Lewis, nutritionist, served as the consultant. An EFNEP nutrition aide along with Lewis traveled to Costa Rica to learn about the needs of agents of the Ministry of Agriculture in respect to delivering Nutrition Education. As a result of that

visit, a week-long workshop was planned and implemented to update the Costa Rican counterparts in areas of infant and child nutrition. (**Information supplied by Margaret Lewis, Oregon**)

Partners of The Americas is a voluntary, non-profit organization committed to extending friendship, understanding, and expertise between states of the United States and countries in Central and South America and the Caribbean. Through exchanges and joint projects, volunteers work together toward development goals. Periodically, Partners sponsors special workshops to focus attention on key issues of a region. In August 1986, Aileen Mills, Julie Michael, and Dawn Harris as well as three Extension home economists from Michigan, an EFNEP aide, Josie Taube, accompanied counterparts from those partnerships—Belize and the Dominican Republic—to a conference in El Salvador on nutrition and health. During the conference, participants visited nutrition and health projects; identified common problems, issues and priorities; and began planning outreach efforts in their respective countries. The workshop involved 26 participants from eight Central American and Caribbean countries and seven U.S. states. (**Information supplied by Mary Andrews, Michigan**).

EFNEP paraprofessionals, Marjorie Gordon and Norma Zaldivar, provided training to the home economics officers in Belize on using the "Eating Right Is Basic" curriculum. They also introduced it to some groups of community volunteer leaders. (**Information supplied by Linda Nierman, Michigan**)

Through the Partners organization, the respective countries can apply for small grants to try out new educational programs. Training grants are also available to help staff members gear up for new responsibilities.



Time for a picnic! An EFNEP 4-H Food And Fun Group in Vigo County, Indiana, enjoy themselves while learning the basics of good nutrition.

As a result of intensive planning, the Belize group identified three possible education thrusts: nutrition education to prevent anemia in pregnant and nursing women, "Say Yes to Belize Agriculture;" and "How to say No"—sex education for youth.

The Dominican group set into motion a process to review and disseminate a dietetics manual for hospitals and began planning for a series of nutrition courses that may be added to the science curriculum at the Universidad Nacional Pedro Henriquez Urena in Santo Domingo.

"This trip was a revelation in that I was able to see firsthand the problems in today's world regarding hunger," wrote Julie Michael. "The Cooperative Extension Service has a role to play....as we extend ourselves as people, we let others know that we care and are willing to try to address their problems—not paternalistically, but as partners."

In June 1984, Janice McRee, home economist in South Carolina and former EFNEP coordinator, attended an international workshop in Bogota, Colombia, "Women: Partners in Development," sponsored by Partners of The Americas. Following the workshop, McRee spent a week with a host family in southwestern Colombia studying the

living conditions of the rural population with a main interest in nutrition and food preservation. (**Information supplied by Janice McRee, South Carolina**)

FUNDAEC, an organization like Extension, trains individuals from given rural communities and they in turn must share their new knowledge and skills with a certain number of others in the community who in turn teach others (a chain concept). The program in its initial stages closely resembles EFNEP. Upon returning to the states, McRee wrote a grant proposal for specific work in five rural villages utilizing the FUNDAEC network. This effort was to provide nutrition education in combination with production, preservation, and marketing of fruits and vegetables. McRee receives project reports and continues to be a resource person on the Partners of The Americas project.

"This experience not only broadened my perspective of people and their way of life," McRee concludes, "but afforded new opportunities for me to use my knowledge and experiences to help others. It also gave me a greater knowledge base to use in my local programming efforts." □

Guidelines To Eating Right

14 Extension Review

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Helping people make difficult changes in their diets to stay healthy...that's the aim of new educational materials being developed by Michigan Extension nutrition specialists.

The materials—teaching packets and bulletins—are based on the recently revised **Dietary Guidelines for Americans** developed by the U.S. Departments of Agriculture and Health and Human Services.

The seven guidelines suggested for most Americans—those who are already healthy—are:

- Eat a Variety of Foods;
- Maintain Desirable Weight;
- Avoid Too Much Fat, Saturated Fat, and Cholesterol;
- Eat Foods with Adequate Starch and Fiber;
- Avoid Too Much Sugar;
- Avoid Too Much Sodium; and
- If You Drink Alcoholic Beverages, Do So in Moderation.

"It seemed that much of what was being done nationally through USDA revolved around the seven dietary guidelines," says Extension Specialist Judith Anderson. "At the same time, we noticed that our home economists were increasingly asking us to prepare materials to support them in program efforts that center around helping people change dietary behaviors to prevent heart disease and cancer."

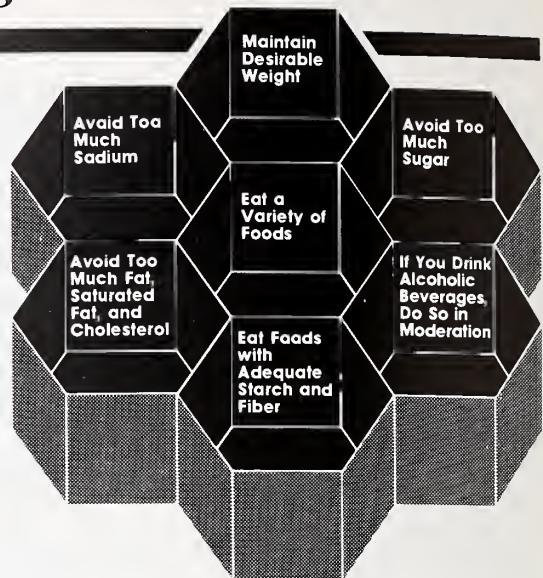
So far, Michigan nutrition specialists have developed two kits, "Shake the Salt Habit" and "Take Heart in the Kitchen."

Kit Contents

The kits vary according to the topic, but generally each contains: a slide set with script, transparencies with script, a lesson plan with suggestions on ways to use the material, handouts that counties can duplicate, a list of suggested activities and supporting materials, reference materials, sample food cartons or labels, and evaluation materials.

"Take Heart in the Kitchen" is basically about fat in the diet. The kit includes empty food cartons with label information containing the amount of fat in the product. The amount of fat in a food may be greater than expected, since not all fat is clearly visible as solid or liquid fat.

Anderson says the program, with its wide variety of activities, first imparts some knowledge about the issue. Participants then assess their own diets.



"We're trying to effect results at a lot of levels, from knowledge changes to actual behavior changes," adds Anderson.

The pre- and post-test evaluation can be completed with a single program or a series of programs. Counties that choose to conduct an indepth evaluation can use a followup telephone or pencil-and-paper assessment of participants' success at making dietary changes.

The lessons are structured so home economists can include food preparation activities. Although food preparation is not the focus of the program, such activities may reassure participants that low-fat or low-salt food can be nutritious and taste good, too.

Enthusiastic Response

Response to the kits has been enthusiastic, according to Anderson. They reached 5,000 people with the "Shake the Salt Habit" program during the first year it was used. "Take Heart in the Kitchen" is expected to reach 10,000 people its first year.

Ongoing Efforts

Currently Michigan Extension staff are developing a kit, "Eat Food with Adequate Starch and Fiber," which will help home economists answer requests for information on fiber. The next kits they plan to develop are "Maintain Ideal Weight" and "Avoid Too Much Sugar."

Michigan staff also developed a series of educational bulletins. Last year, they distributed 5,000 copies each of "Dietary Fat," "Sodium," and "Dietary Fiber." Two new ones, "Vitamin A" and "Managing Food Choices," were printed last July. By the year's end, 2,000 copies of each had been distributed.

For more information, contact Judith Anderson, Department of Food Science and Human Nutrition, 165 Anthony Hall, Michigan State University, East Lansing, MI 48824. ▲

Catalyst For Cooperation

Extension Review 15

Health issues can be controversial—especially when the topic is red meat consumption and the audience includes families with an economic interest in beef and pork production. But in Iowa, the assumed controversy has become a beneficial partnership.

"I'm thanking Betsy over and over," says Nancy Degner, home economist for the Iowa Beef Industry Council.

"Betsy" is Iowa Extension Nutritionist Elisabeth Schafer. As chair of the risk factor committee for the Iowa affiliate of the American Heart Association, she asked Degner to meet with the group.

"I knew that both the beef and pork industries believed themselves besieged by recommendations for a prudent diet, while the Heart Association felt it was battling a defensive meat industry," explains Schafer.

"Getting them together sparked a team effort that continues to grow, benefiting Iowa consumers," she adds.

Pioneering Effort

"When we sat down face to face, we discovered that the 'conflict' between our two groups seemed more obvious to the media than to ourselves," says Degner. "Our aims were actually the same—to promote the concept of healthy eating."

Past President of the American Heart Association's Iowa affiliate, Marvin Stromer calls it a "pioneering combination."

"I'm not aware that the combination had existed anywhere else in the country to the extent it did

in Iowa," says Stromer. "I was convinced that the groups could work together to the benefit of all—and it's working."

Educating Consumers

Since that initial meeting, in the spring of 1985, the two groups have joined forces to tell consumers how to include red meat in a heart-healthy diet.

In September 1986, 250 grocery stores participated in the Second Annual American Heart Association Food Festival and reached 40,000 Iowans.

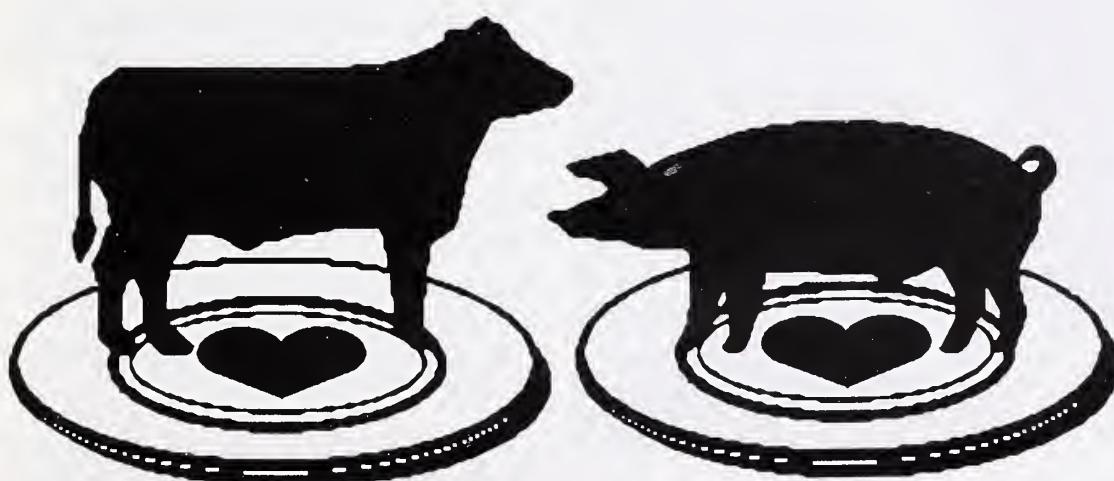
At a state meeting of restaurant owners, Degner explained how portion size and preparation methods can be changed on existing menu items to meet the Heart Association's heart-healthy guidelines.

Producer groups funded a research project to help educate health care professionals on ways to include red meat in healthy diets. Followup studies will check for attitude and behavior changes.

"It's a message Iowa cattle and hog producers want to spread," Degner says. "Our goal is to help nutrition-conscious consumers find ways to continue including red meat in their diets. The majority no longer want a 12-ounce steak, but most can accept a 3-ounce slice of lean roast."

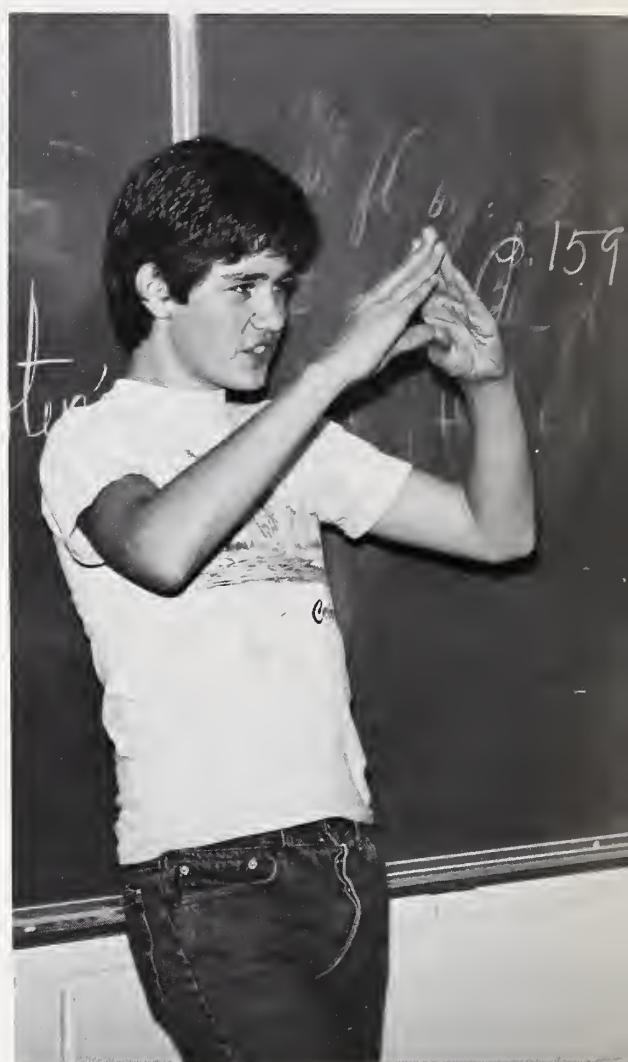
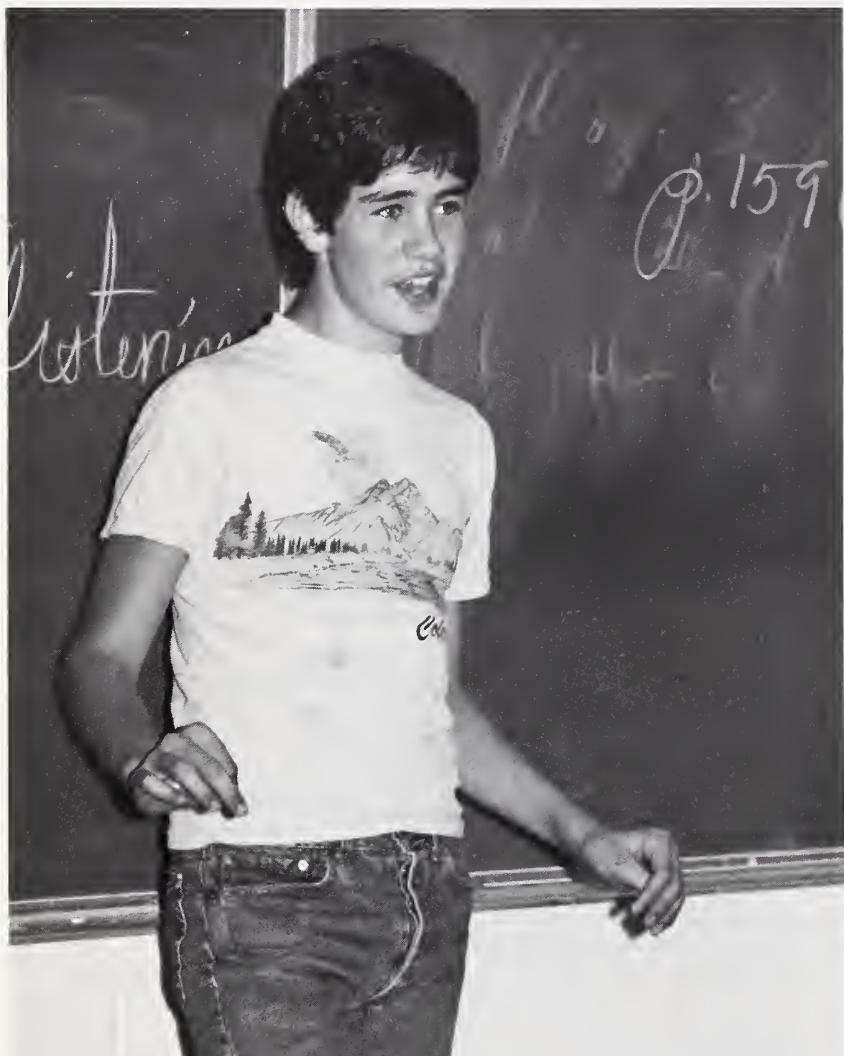
"Overall, consumers are the winners," says Extension nutritionist Schafer. "As a result of this cooperation, consumers now hear a consistent, unified message." ▲

Diane Nelson
Communications
Specialist, Home
Economics
Iowa State University,
Ames



DARE To Be You!

16 Extension Review



Katherine Timm
Extension Special
Projects Editor
Colorado State
University,
Fort Collins

How can we help youth reduce the risks of alcohol, tobacco, and drug use; unwanted pregnancies; and school dropout?

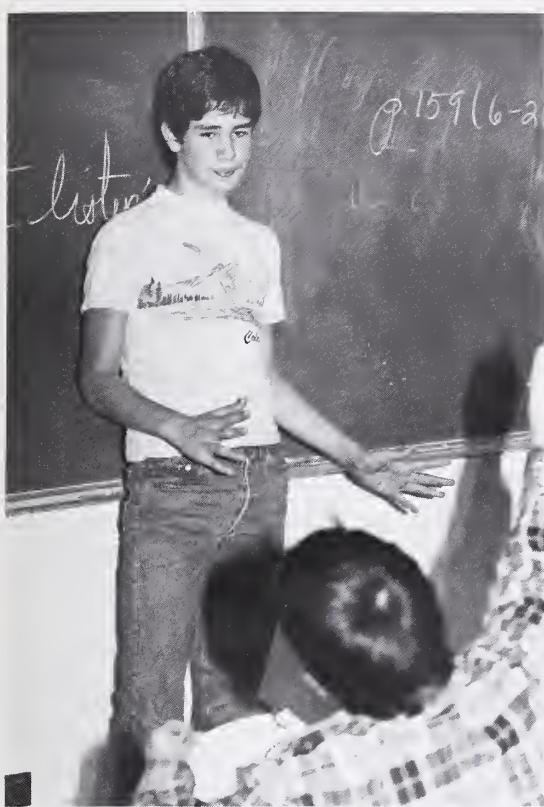
Can we teach adolescents to resist peer pressure?

How can we help youth develop skills and attitudes that will help them through their teen years?

Colorado schools, health agencies, youth clubs, law-enforcement agencies, and other organizations are tackling these and similar teen problems through Extension's "DARE To Be You" program.

The program incorporates strategies known to be effective in reducing problem behaviors in youth.

"It can be used alone or to supplement existing programs," says Jan Miller-Heyl, Extension health specialist at Colorado State University and creator of the program.



So far, DARE has reached 20,000 people in state and local agencies throughout Colorado; 26 other states have requested copies of the training manual.

Community Approach

The program is designed to allow for individual community needs and expertise, and yet provide a framework for developing a community approach to reduce problem behaviors.

DARE helps participants develop characteristics including:

- D—Decisionmaking abilities;
- A—Assertiveness in dealing with peer pressure;
- R—(Self) Responsibility;
- E—(Self) Esteem

DARE is unique because it recognizes that adolescents are affected by every aspect of their community—peer groups, teachers, parents, and adults as they interact in youth organizations.

According to Miller-Heyl, many youth agencies influence a wide range of youth but often don't have access to basic prevention information or easy-to-apply strategies and activities. DARE addresses this problem by providing training to parents, teachers, and a wide cross section of youth-serving groups.

Enhancing School Efforts

"Schools often are given the bulk of responsibility for reducing adolescent problem behaviors," says Miller-Heyl, "but adolescent problems do not belong solely to the educational system—they belong to the entire community."

The impact of programs in the educational system can be greatly enhanced if an adolescent receives the same message through other sources as well.

In DARE's pilot program in Weld County, evaluations over a 2-year period showed significant increases in self-responsibility, assertiveness, and decisionmaking skills in youth who participated in the program as compared to the control group who were not exposed to the DARE program.

Increasing Skills And Knowledge

DARE training covers a series of developmental concepts and provides strategies used in daily interactions. Activities and workshops to develop skills and increase knowledge are important components of the program.

Learning materials include a worksheet on decisionmaking that explains the options a person has when faced with a difficult situation—such as being pressured by peers to drink or smoke.

"If we provide young people with the tools to honestly and effectively deal with decisions, while at the same time remaining positive about themselves, they will realize that despite peer pressure the final decision is up to them," explains Miller-Heyl.

To be most effective, these skills and support systems should be developed before the ages of 13 and 14 when the greatest adolescent changes occur. Miller-Heyl targets the program to 8- to 12-year-olds but strongly encourages others to participate.

Alternative Education Teacher Paulette Giambattista at Ignacio High School uses DARE in conjunction with computer assisted instruction and jobskills training to create a personalized learning environment for her students.

"The program has taught me skills I can teach to the kids," she says. "It provides different ways to get kids to think."

For more information on DARE, contact Jan Miller-Heyl or Wanda Shores at 116C Veterinary Science Building, Colorado State University, Fort Collins, Colorado 80523. A

Youth at Miller Junior High School in Colorado participates in an exercise in breaking down the "communication barriers" for the "DARE To Be You" Extension Program. A major objective of DARE is to help adolescents develop effective communication skills and attitudes of self esteem that will reduce problem behaviors.

Dangerous Interactions—Food And Drugs

18 Extension Review

Connie Betterley
Former Extension
Program Assistant,
Home Economics
Iowa State University
Ames

Consumers spend nearly 14 billion dollars annually on approximately 1.5 billion prescription drugs. Thirty-five percent of these consumers leave their doctor's office with no information about the drugs that were prescribed. Few consumers ever ask their pharmacist about over-the-counter drugs they purchase. Few consumers suspect that the medications they take might interact with the foods they eat.

The likelihood and seriousness of food-drug interactions depend upon many factors. Most food-drug interactions are minor; serious food-drug interactions are uncommon. But if the public learns to take certain precautions when taking prescription and over-the-counter medications food-drug interactions can be avoided entirely.

Food can alter the way a medication reacts in the body. The food itself or the nutrients in food may cause a drug to be less potent, or in some cases, more potent. For example, when tetracycline and dairy foods interact, the calcium binds with the drug. This prevents the drug from being absorbed and renders it ineffective.

Program Support Materials
In 1985, to educate the public about the potential for food-drug interactions, Iowa Extension developed a set of program support materials for use by Extension home economists.

Display for Iowa Extension's program educates about the potential dangers of over-the-counter medications or prescription drugs and their interaction with foods consumers may eat.

Extension designed the materials to help clientele become aware of some of the potential problems associated with food-drug combinations.

The program materials that were developed included the following: a slide/tape set, lesson plans, a quiz, a game, two publications, two displays, media releases, a videotape, and five 60-second taped TV spots.

"All people who take medications are a potential audience for programs on food-drug interactions," says Elisabeth Schafer, Extension nutritionist at Iowa State University. "However, certain people are more likely to experience interactions. These people include the elderly, people with chronic health problems, and people with poor dietary and health habits."

Slide/Tape Presentation

Barbara Buffington, Extension home economist in Mills and Montgomery Counties, gave slide/tape presentations to 80 senior citizens. "Most of the senior citizens were aware of some of the problems of food-drug interactions with prescription drugs," she points out. "But many did not realize that over-the-counter drugs can cause problems. Some of the senior citizens also felt that many doctors were remiss in giving instructions about taking medications. The truth is that how and when you take a drug can influence its effectiveness."

Extension home economists advised consumers to follow these steps to avoid food-drug interactions: Question your doctor or pharmacist about food-drug interactions; follow all directions for medication use; talk with your doctor about potential interactions and side effects; take drugs with water; avoid alcoholic beverages when taking drugs; and eat a balanced diet.

Patti Dillon, Extension home economist, Fayette County, stressed the importance of communication with the doctor or pharmacist when taking medications.

TV PSA's

Charlotte Young, Extension consumer and management specialist, Cedar Rapids, made extensive use of the TV PSA's. The PSA's were aired several times a day on KGAN-TV and KCRG-TV the week after Christmas. These spots, coupled with a live call-in radio show, resulted in over 200 requests for the Extension bulletin, "Facts About Food-Drug Interactions."

In other Iowa counties, displays were set up in libraries, pharmacies, malls, health fairs, and restaurants. Bulletins were mailed to participants who requested further information.

Program Evaluation

The program was evaluated year-round as the educational materials were used. Some programs were evaluated by use of pre- and post-questionnaires at the lesson to measure knowledge change. Other home economists evaluated the program by means of a telephone survey to determine behavior change.

In a random sample of 237 participants, 73 percent indicated that they continued or increased their practice of reading medication labels. Sixty percent of the respondents indicated they would ask their doctor or pharmacist questions about the food-drug interactions about their medications. Twenty-seven percent of the respondents indicated they were decreasing their use of over-the-counter drugs or changing their diet while on medications. A



Food, Medicine, And You

Extension Review 19

When a program of food-drug interactions was first developed in Indiana, Extension specialists in other states who reviewed it expressed this concern: Is this information too complex for Extension audiences?

Specialists felt clientele would lose interest in the program because of the technical level of the information. And if this were the case, wouldn't clientele turn to less reliable sources of information? This concern has also been expressed in regard to other topics dealing with relationships between nutrition and fitness. Health concerns about heart disease, osteoporosis, and cancer are sometimes considered to be too technical or controversial to explain to the general public.

Extension at Purdue University is offering a statewide program on food-drug interactions—Food, Medicine, And You—that combines a 15-minute slide/tape presentation with a publication that participants can take home and use as a reference. When conducting the program, which was developed in 1984, the Extension home economists usually invite a health care professional (usually a doctor, pharmacist, dietitian, or nurse) to attend the presentation and answer questions about specific drugs. Food, Medicine, And You has been given multiple presentations since its development.

Before and after the program, participants are asked to complete a questionnaire. Approximately 3 months later, a followup questionnaire is sent to all participants.

Survey Results

A survey of approximately 500 participants in the program, who attended sessions held in 10 counties in southern Indiana, revealed that the information was both understandable and useful to them.

According to the survey, participants not only learned more about possible food-drug interactions (test scores increased 12 percent after the presentation), but they retained the new knowledge through the followup test given 3 months later.

Seventy-five percent of the participants who returned the followup questionnaire stated they had purchased some medicine since attending the program. Ninety percent of those who had purchased medicine indicated they had used information from the program.

Participants indicated they now read medicinal labels more carefully, checked to make sure they had the correct prescription, followed instructions exactly, questioned their doctor or pharmacist when unsure of instructions, and checked for possible food-drug interactions.

One participant, who had been taking medicine for a year and was experiencing dizziness, headaches, and nausea, requested information on the medicine from her pharmacist after the program. She discovered she was supposed to take the medicine one hour before or four hours after eating, not

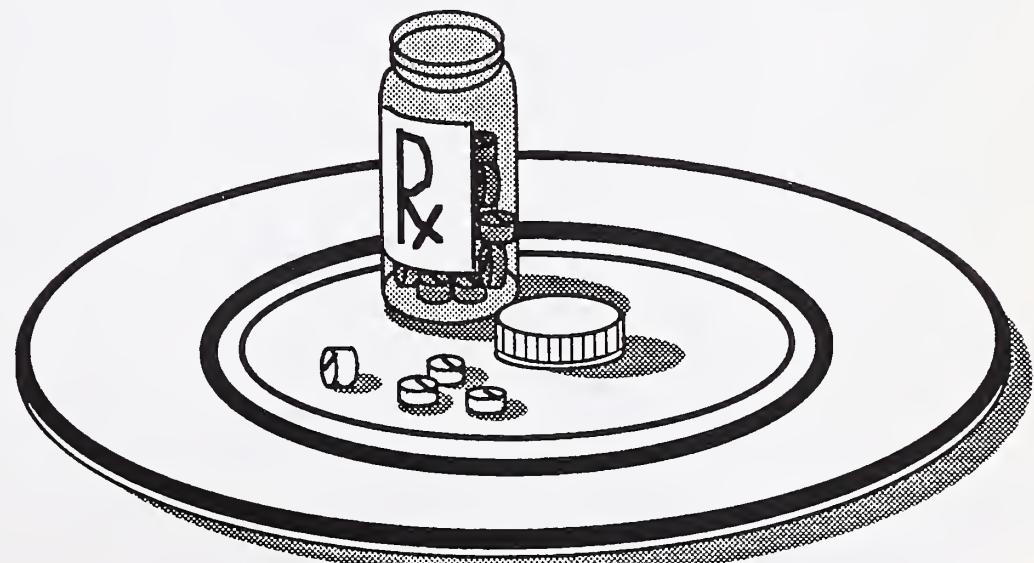
during her meal. "Now, I can eat, sleep, and I am no longer dizzy," she wrote. "I can now work 8 to 10 hours a day." It was obvious that the program information helped her to stop and think about possible food-drug interactions.

Understanding Broadened

Program responses indicate that people want information about nutrition, health, and fitness. TV, newspapers, and magazines have made technical terms more familiar and broadened the public's understanding of scientific terms and vocabulary. Everyone does not have the same familiarity with the science of nutrition or pharmacology, but many people now have a basic understanding of human physiology and biochemistry.

In an increasingly complex world, it is important to address audiences at a level of sophistication that gives them the most benefit. In the area of nutrition and health that level of sophistication may be much higher than many of us realize.

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Extension Nutrition Specialist
Department of Foods And Nutrition
Purdue University,
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Dine Out—Dine Healthy

20 Extension Review

Carolyu Leontos
Area Extension
Nutrition Specialist
and
Amauda Penn
Dunkerly
Extension
Communications
Coordinator
University of
Nevada-Reno

Many Las Vegas chefs now feature dishes that are healthful as well as gourmet because of Nevada Extension's nutrition thrust in cooperation with the American Dietetic Association. Here, Nancy Wellman, chair, Dietetics and Nutrition department, Florida International University, samples a Gourmet diet creation of Chefs Gilbert Stourenot and Chris Cook of Diamond Jim's restaurant.



Las Vegas, vista of glittering hotels, gambling casinos, and lavish buffets has never been noted as a site where moderation reigns at the table or one counts calories before chips or the house odds. That is, until a week in October 1986 when it served as the location for the 69th annual meeting of the American Dietetic Association (ADA).

That week, when over 10,000 conventioners journeyed to southern Nevada to attend the ADA event, Las Vegas was known as "the city of good nutrition" because of Extension's nutrition thrust toward healthier dining.

Carolyn Leontos, Extension nutrition specialist in southern Nevada, encouraged local Las Vegas area chefs to feature healthful creations of fish, poultry, salad entrees, soups and appetizers—not just for the convention but year-round. In conjunction with the ADA program theme—"New Visions, New Ventures"—many Las Vegas area restaurants welcomed the dietitians with a "New Ventures In Good Eating" special for the week.

A recent American Dietetic Association national survey revealed that nearly 50 percent of Americans stated they would order low-fat, low-cholesterol or low-calorie foods if restaurants made them available.

Emphasizing this point to local chefs, Leontos won many of them over to the idea that good food can be both tasty and healthful. "In the past," Leontos says, "many restaurant owners assumed that people would not eat healthful food when dining out. Today, we are seeing that myth shattered. I don't believe this is a passing fad. And I don't believe the food industry does either."

Public Demand For Healthy Meals

Statistics from the American Heart Association show that the most exceptional growth in last year's restaurant food offerings occurred with salads, vegetables, and fresh fruits.

Participating chefs at the ADA convention followed the USDA Dietary Guidelines set for Americans—low salt, fat, sugar, and cholesterol and high fiber. Leontos reviewed and approved all recipes as a registered dietitian on the Nevada Advisory Committee for the convention and president-elect of the Nevada Dietetic Association.

Incentives To Restaurants

Early restaurateurs participating in the "New Ventures" program had their recipes printed in a special booklet—"New Ventures In Good Eating In Las Vegas"—that was distributed to all convention attendees including several thousand exhibitors. The booklet, published by the ADA (with an appreciation to the Nevada Cooperative Extension for assistance), doubled as a restaurant guide with a listing of all cooperating eating establishments.

The major press event of the week at the convention was a food tasting the opening day of the ADA meeting. Leontos designed the event to generate publicity for the nutritious menu specials available in Las Vegas restaurants as well as to highlight ADA's presence in town.

Nutritious And Tempting Meals

Las Vegas chefs practiced what Leontos preached and created new, mouth-watering gourmet creations. The Frontier Hotel served Chicken Bacchus Salad, accented with strawberries, grapes, and herbs. The Showboat Hotel offered South-of-the-Border Red Snapper, a "not for dieters only" fish dish featuring mozzarella cheese, fresh guacamole, served on a bed of spinach noodles. Chefs at the Las Vegas Hilton served their popular Ratatouille Omelette as cholesterol-free cuisine, complete with diced onion, tomato, green pepper, and zucchini.

"New Ventures" dishes shattered the myth that healthy restaurant fare is "boring." The statistics and the event indicate the trend toward healthier dining out is here to stay.

For a free copy of the recipe booklet, "New Ventures In Good Eating in Las Vegas," write to:

Carolyn Leontos
Nevada Cooperative Extension
953 East Sahara Avenue
S.T. & P. Building, Room 207
Las Vegas, Nevada 89104

Solving The Diet Puzzle

Extension Review 21

Today, "fad" diets abound in America, all guaranteed to melt pounds off effortlessly, even while we sleep. But to many overweight Americans, confused by countless extravagant claims, dieting is nothing more than an insolvable puzzle.

However, Rose J. Davis, Extension nutrition specialist at the Pee Dee Research & Education Center, Florence, South Carolina, is fitting the pieces together with the Diet Puzzle Program she designed.

The 12-lesson Diet Puzzle Program, which will have statewide exposure in 1987, involves sound nutrition principles, a diet plan based on the food exchange list system, low-calorie food preparation techniques, lifestyle modification, and an exercise program involving walking.

The program is designed for persons who need to lose no more than 50 pounds. "Special needs of the grossly obese person need to be addressed by a registered dietitian," Davis comments. "I felt that home economists would be much more successful with a less overweight group, and when they're successful they'll want to conduct the program more often."

Susan Eaddy, an Extension agent in Clarendon County, would agree with Davis. Recently, Eaddy conducted two Diet Puzzle Programs and received letters from grateful participants. "Anyone conducting the course must be very careful," Eaddy cautions, "because you have the responsibility for leading people who have made one of the greatest emotional commitments in their entire lives."

Enrollment Agreement Required

Participants in the program must make three agreements in writing before they are enrolled. First, they must agree to use the low-calorie diet as it relates to the exchange list system. Next, they must agree to the walking program which is graduated by time and distance and adjusted for different age groups. Finally, they must assent to a modification of lifestyle, such as stress reduction through relaxation exercises.

When potential participants begin to call, Extension agents conduct an interview to determine their eligibility. Participants must be at least 18, no more than 50 pounds overweight, not on a special diet, and must not have such health problems as diabetes, arthritis, or kidney and heart diseases.

Program Lessons

In Lesson One, participants are taught how to maintain their food records and weight charts as well as calorie intake.

Lesson Two covers more specifics of the food exchange list—a system which enables the dieter to select a preferred food from a list for a specific food group. The prescribed serving size is given for each food.

Lesson Three allows the participants to develop their own walking exercise program based on their age and physical ability.

Lesson Four teaches behavior modification techniques and includes a checklist of lifestyle modification ideas.

Lesson Five relates to food purchases, especially label reading. Lesson Six teaches participants low-calorie cooking techniques. Lesson Seven demonstrates stress reduction through relaxation techniques. Lesson Eight introduces the USDA Dietary Guidelines while Lesson Nine describes ways to use herbs and spices in cooking to reduce or replace salt, sugars, and fats.

Lesson Ten is devoted to vitamin supplements. Participants learn to determine their specific needs. Lesson Eleven evaluates many of the popular weight loss diets. Participants are asked to bring in examples of diets they failed at and then learn why this occurred.

Lesson Twelve, the last, is one of the most important. Prior to it, most participants have been losing the recommended 1 to 2 pounds per week in a mutually supportive, goal-oriented environment. At this point, they are asked to proceed by themselves and maintain the new lifestyle to which they made a commitment eleven weeks before.

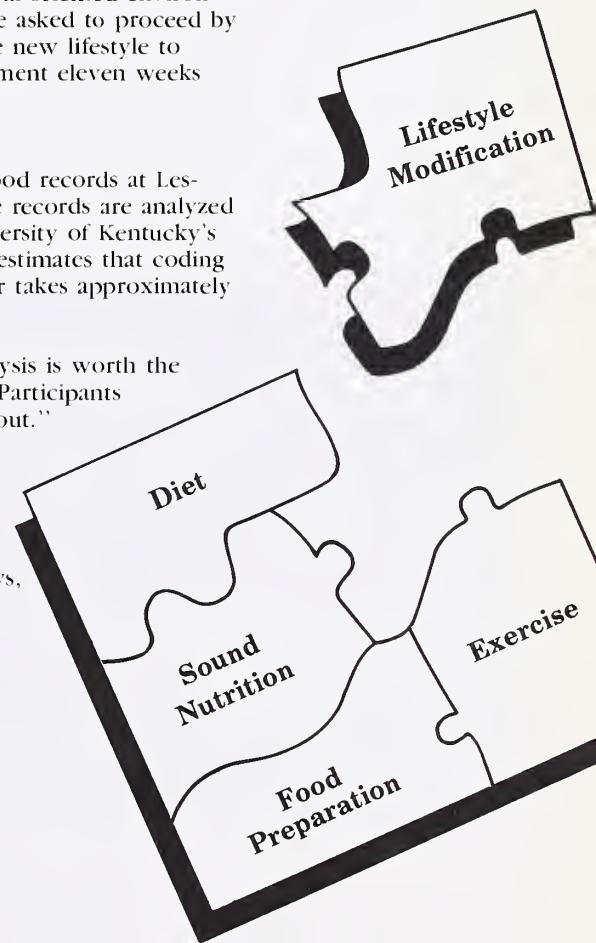
Computer Analysis

Participants turn in 3-day food records at Lessons 1, 2, 3, 8, and 12. The records are analyzed by computer using the University of Kentucky's DIETANAL program. Davis estimates that coding and typing for the computer takes approximately 30 to 45 minutes per client.

"We feel the computer analysis is worth the effort," Davis comments. "Participants learn much from their printout."

Currently, interest is high in the Diet Puzzle Program, Davis reports. "Despite competition from other weight-loss groups," she says, "in 1987 more than 20 counties plan to offer the program." ▲

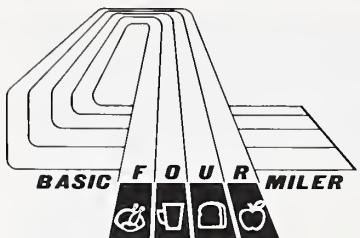
Jerry Dyer
Area Extension Editor
Pee Dee Research &
Education Center
Clemson University
Cooperative Extension
Service
Florence, South
Carolina



Community Fitness Event

22 Extension Review

Carol Walter
Extension Food and
Nutrition Specialist
South Dakota State
University, Brookings



Imagine one day of the year when each person in South Dakota has the opportunity to participate in a "fun run or walk" in their county. Not only do they get outside for some enjoyable exercise, they also learn about food, nutrition, and fitness.

This vision was brought to life for a trial run last October 4 when five South Dakota counties each held a fitness event—the Basic Four Miler. Extension Food and Nutrition Specialist Carol Walter and Dairy Council Program Leader Beth McIntyre initiated the fitness race.

Participants had a choice of three events—a 2-mile walk, a 4-mile run, or a 6.2-mile run. They could enter individually in one of seven age categories, or as part of a four-member family or corporate team.

Information And Activities
Four-H'ers helped organize the event. During registration, they

displayed posters and gave demonstrations on food and fitness topics.

Registration packets contained T-shirts, pin-on numbers, and course information along with bulletins explaining the dietary guidelines for health and the importance of drinking water during exercise. Post-race activities included a breakfast buffet and an awards ceremony.

Included in news packets promoting the event were a series of columns targeted at persons who would be starting an exercise program to prepare for the event.

Pleased With Turn-Out

The first annual Basic Four Miler drew 185 walkers and runners. Participants ranged in age from 8 to 71.

"We were very pleased with the turn-out," says McIntyre, "especially since we purposely chose less populated sites so things wouldn't get too hectic."

Extension agents who coordinated local arrangements were also pleased with the event. Cheyenne County Agent Linda Benning organized volunteers and then participated in the 4-mile run.

"The event gave me an opportunity to set and then reach a personal goal of running 4 miles," says Benning. "But more importantly," she adds, "sponsoring the event gave us a chance to model the nutrition and fitness behaviors that we have been teaching the past few years."

Community Support

Extension agents gathered community support by asking high school track coaches or running clubs for help in planning and marking the course, and timing the races. Local grocers donated food; businesses sponsored prizes for winners.

The Basic Four Miler proved beneficial to the 4-H program. Money collected beyond what was budgeted for the event was donated to the 4-H Foundation of South Dakota, Inc.

With the success of the first Basic Four Miler, more Extension agents are ready to take on the challenge of holding the event in their counties. The race proved a positive activity that exposed South Dakota Extension to new audiences, and a fruitful, cooperative venture that was embraced by local communities. A

You choose your age category when you run in the Basic Four Miler—a fitness race initiated by South Dakota Extension food and nutrition leaders. Five counties participated in this event where 185 walkers and runners entered by age category, as family members, or as part of a corporate team.



Poster Promotes Food and Fitness Awareness

Extension Review 23



Since its introduction in the fall of 1986, a unique and informative poster, "Food and Fitness—An Everyday Event," a project of USDA's Food and Fitness Program, of which Extension Service is the lead agency, has been receiving national and international attention.

The colorfully illustrated poster resembles a 365-day calendar and mentions all

major food groups and commodities. It is designed to increase Americans' awareness of the abundance and variety of food provided in the United States and the relationship of diet and exercise to good health. The poster visually highlights the functions of the Food and Fiber System—food production, protection of the food supply, distribution and marketing, and research and education. Twenty-two USDA agencies contributed to the poster's design.

Fifteen USDA agencies have purchased the poster to distribute to their local offices. The Foreign Agricultural Service has placed the poster in their offices around the world, and OGPA reports many requests for it from foreign countries. Farmers Home Administration sent copies to their State Wellness Coordinators; Forest Service placed copies at their offices at the National Forests. Regional Food and Nutrition offices used the poster during National School Lunch Month.

Presentation Ceremony

In Fall 1986, in a ceremony which received wide press coverage, Assistant Secretary for Science and Education Orville G. Bentley presented a poster to Secretary of Agriculture Richard E. Lyng which was hung in the Secretary's Reception Area. Over 100 copies of the poster were sent to the press nationally along with a press release explaining the purpose of the Food and Fitness Program.

Stu Sutherland, Extension information specialist, Information and Communications STaff, developed a quiz in camera-ready form to be used by state food and fitness contacts along with the Food and Fitness poster.

The poster—measuring 23-½ inches by 35-½ inches—is available for \$4.25 (domestic) and \$5.35 (foreign) from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. You may also call GPO at (202) 783-3238. Orders of 100 or more copies mailed to one address receive a 25 percent discount.

For more information on food and fitness, or about the quiz, contact:

Bonnie Tanner
Executive Director, USDA
Food and Fitness Program
Room 3438-S, South Building
Washington, D.C. 20250-0900
or phone: (202) 447-8855

Florida Focus: Food Flash

Lizette L. Murphy
Extension Consumer
Food Marketing
Specialist
Home Economics
Programs
and
William R.
Summerhill
Extension Program
Development and
Evaluation Specialist
and Associate
Professor
Institute of Food and
Agricultural Sciences
University of Florida,
Gainesville

Florida Extension home economists in six rural, economically stressed counties are cooperating to pinpoint the problems of target audiences, set future priorities, and develop effective programs in food management.

Extension home economists are aware that critically important trend shifts require new programming strategies and technical answers. To develop effective programs in food management, Extension home economists in Baker, Hamilton, Jefferson, Madison, Suwanee, and Taylor counties each tapped the expertise of their district Extension director, and their state specialists in home economics programming, home economics consumer food marketing, and program development and evaluation. Together, they devised a strategy to assess the specific needs of Florida clientele and evaluate the ability of both staff and programs to meet those needs.

Data was obtained from 2,500 households, a response rate of 65 percent. Comparison with Census Data showed that the survey responses were representative of the county populations for income, household size, and race. Income levels of households in all six counties were below the national average. Approximately half were single or two-member households; the ethnic segment of the respondents was representative of most rural north Florida counties.

Findings

The survey findings revealed no significant differences among the six counties. In all of the counties, household size, race, and income appeared to be related to some food purchasing and management practices, sources of food, amount of money spent on food at home and away from home, and the nutritive value of food consumed per household per day.

Survey data revealed that the majority of shoppers do not regularly use the following economizing measures: plan meals before shopping; use cents-off coupons or refund coupons; read ingredient labels on products; compare products for nutritional value; and purchase generic brands if available. The lower income respondents were less likely to use shopping lists, coupons, advertised specials, and unit pricing when shopping.

Food Management Practices
The survey disclosed that food waste was a major problem. Discarding edible food was the practice most strongly related to food waste. Although the sample was from a rural area, approximately one half of the households did not grow home gardens or preserve food.

Lower income households were less likely to grow and preserve food.

Food Consumption Patterns

To provide data on food consumption patterns food served on a daily basis was categorized according to the four basic food groups. The most significant finding was that a high percentage of households lacked a daily serving of milk and dairy products and the fruit and vegetables group. Lower income respondents were less likely to have a daily serving from all food groups.

New Information Welcomed

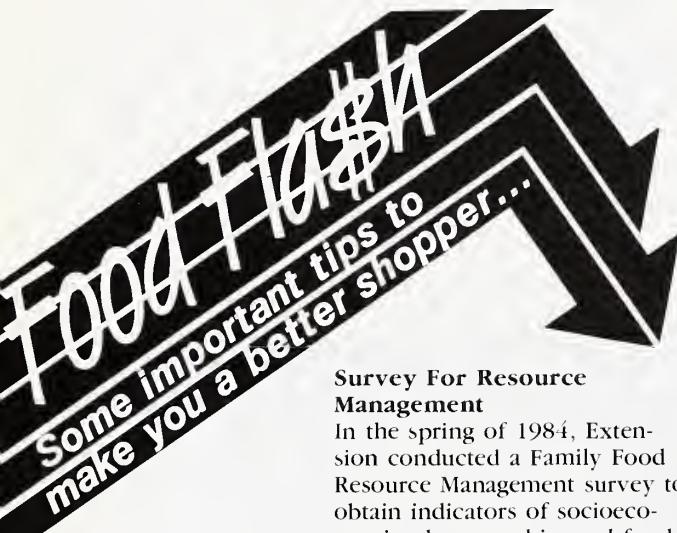
The survey results provided important implications for program methodology. Almost 80 percent of respondents indicated they would like to receive new information about food and nutrition. Newsletters, pamphlets, and learn-by-mail were strongly preferred over other traditional methods of receiving information. Eighty percent of the respondents stated they did not like group meetings.

Unique Approach: "Food Flash"

A Florida Extension multi-county team is proving that directional planning and targeting specific information to the needs of clientele can make a difference through a program called Food Flash.

The Food Flash Program is designed to address specific problems of food shopping and management through the following delivery systems:

- A Food Flash "mobile information center" used as a stand-alone display board in stores with a pocket stocked with "Tip-Of-The-Week" cards. The cards contain one-concept messages that are restocked each week with an appropriate topic;



Survey For Resource Management

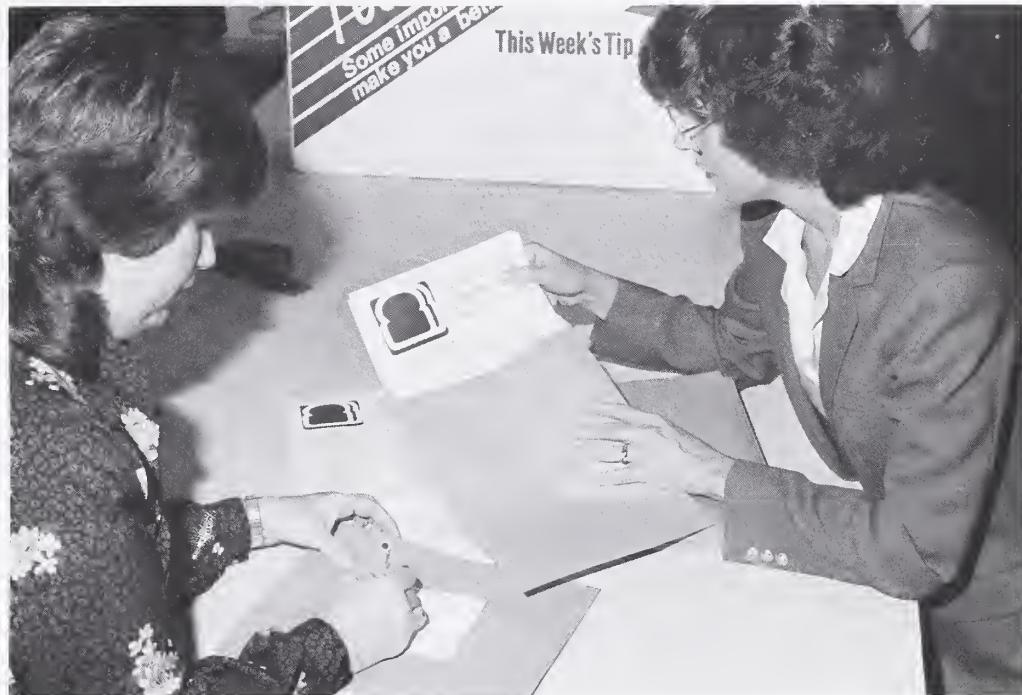
In the spring of 1984, Extension conducted a Family Food Resource Management survey to obtain indicators of socioeconomic, demographic, and food-related practices of rural households in the counties and to identify potential target groups.

The survey was designed to identify similarities among county populations and within the state population that would encourage multicounty program development and implementation.

- Food Flash in-store audiotapes that offer shoppers point-of-purchase information;
- A Food Flash "Tip-Of-The-Week" that is published in supermarket newspaper food advertisements; and
- A Food Flash "mini program" presented at in-store or agency locations.

Food Flash has been packaged and marketed by Extension county home economists to deliver a message that will appeal to various clientele. For example, in Madison County, Delores Jones and Janet Thigpen documented an increase in knowledge and changed practices for food stamps with WIC recipients who were reached with Food Flash information. In Jefferson County, Phyllis Kennedy has been successful using Food Flash programs with the elderly at aging centers. Meredith Taylor of Suwanee County used a mobile unit to conduct cooperative programs with food retailers at supermarkets. Deborah Humphries of Taylor County employed Food Flash as an auxiliary information system for the county health department.

Through the efforts of these and other agents, Extension has gained recognition for conveying food management educational information with other government agencies who serve seldom-reached audiences. Because of their visibility and credibility these efforts have resulted in new partnerships with the food industry and business community. Home economists in Florida and other states are successfully using the resources they have developed.



The Meaning of Teamwork

"Teamwork—with home economists joining together in a multicounty long-range programming effort—takes dedication and a cooperative spirit that recognizes each team player's expertise and role," says Muriel Gravely, Hamilton County Extension director and home economist. "The real challenge is a good plan today, a better plan tomorrow." □



Top: Finalizing the mailing of the Family Food Resource Management questionnaires are Florida County Home Economists Muriel Gravely (left), Hamilton County, and Meredith Taylor, Suwanee County. *Below:* Samples of Family Food Resource Management Surveys with pre- and post-survey correspondence.

For The Health Of It

26 Extension Review

Janet Usinger-Lesqueroux
Extension Area Specialist, Food and Nutrition
Washeoe County Extension University of Nevada-Reno

"Judy Fast" is the high school cheerleader who's always on the run and eats at the fast food restaurant where she works evenings. "Jock Star" is the star quarterback of the high school football team who works out daily and whose nutrition habits are based on an unrealistic self-image.

Judy and Jock are fictitious, but along with "Al Natural," "Dee Dieter," and "Joey Norm" they represent "typical teen" dietary types that high schoolers identify with when they assess their habits in "You: For The Health of It," a two-week Nevada nutrition education program. Developed in 1986, health/physical education teachers have responded enthusiastically to the program whose ultimate goal is for teens to make wise food choices within their varied lifestyles.

To identify a specific direction for nutrition education that would be pertinent to teens, Cooperative Extension and a number of local health agencies cooperated and gathered information at Washoe County high school fairs from 1982 to 1985 on many health-related issues. Several agencies addressed the problem of weight assessment and control. There was particular concern about teenage girls, who succumbed to peer pressure and followed "fad diets" that could possibly compromise their health.

In addition, a questionnaire, developed by Marsha Read, professor, School of Economics, University of Nevada-Reno; Janet Usinger-Lesqueroux, Extension Western Area specialist, Washoe County Extension; and Marilyn Goad, Northeast Area specialist, 4-H, Elko County Extension, provided new dietary data on northern Nevada adolescents. The questionnaire revealed teenage dietary practices, activity levels, and use of supplements. In addition, the form provided information on height, weight, frame size, and percent of body fat.

Questionnaire Findings

This data provided the basis for a nutrition curriculum for high school students. One significant finding was that approximately 40 percent of participating teens did not feel they maintained their ideal body weight. Yet, none of these teenagers were above or below their normal weight range.

This discrepancy in the way teenagers perceive their ideal body weight led to the first activity of "You: For The Health of It:" a slide/tape program aimed at students developing a more realistic self-image. "The Perfect 10: Your Idea Or Theirs?" explains body types and their genetic



determination. The program puts the weight components—muscle, fat, and bone—into perspective with regard to body types. It attempts to combat such media influences as movie stars, fashion models, and other role models, and asks students to think about their own body type and evaluate their self-image.

The program explains how nutrition affects each of the components of weight. It compares popular weight reduction diets with sound nutrition practices.

Assessing Dietary Habits

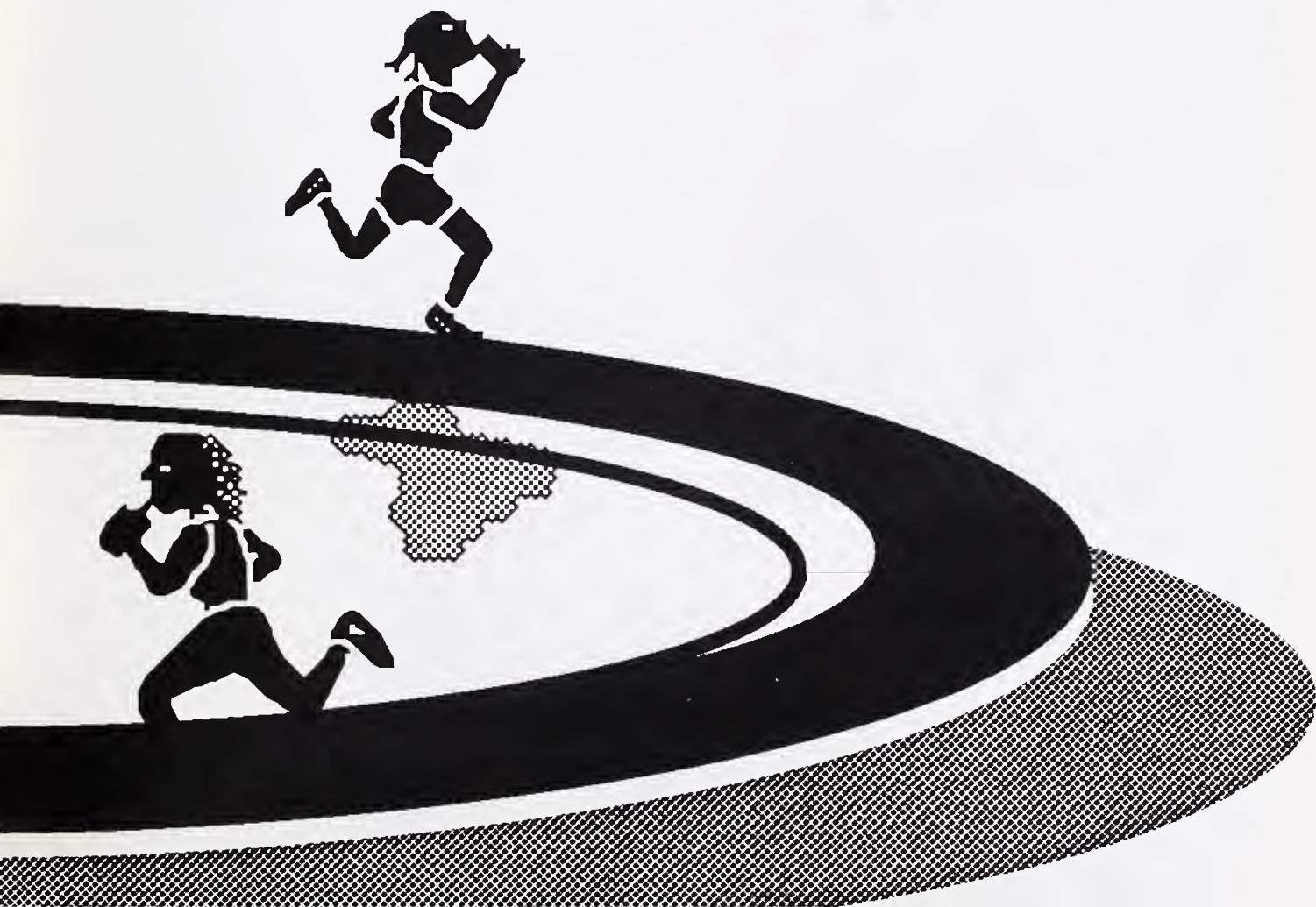
The second activity has the students assess their own dietary habits. Students typically have erratic eating patterns that reflect their extremely active lifestyles. They tend to have irregular mealtimes, or skip meals altogether. Often, they supplement their diet with "junk" food. Yet for teens, this is a particularly critical time when nutritional requirements are at their peak to ensure a healthy adulthood.

Students are presented with sample diets that have been analyzed. These samples are of fictitious "typical teens" that students can easily recognize. They include "Al Natural," the marathon runner, who avoids junk foods and eats only health foods; "Dee Dieter" who diets as a result of peer pressure, is overweight yet active in sports suitable to her heavy musculature, but who nevertheless wants a model's figure; "Joey Norm," a typical high school student who is on the baseball team, works weekends, and eats regularly with his family; and "Judy Fast" and "Jock Star" mentioned earlier.

After learning the nutritional advantages and disadvantages of these fictitious "typical teens," students learn to analyze their own diet and assess it for overall nutritional quality using a simple computer program. The goal is for teens to make wise food choices within their varied lifestyles.

After assessing their individual dietary practices, the students then determine their overall fitness. The goal of this final phase is to incorporate exercise into a healthful lifestyle.

"You: For The Health Of It" is currently being pilot tested in western Nevada high schools. Pre- and post-pilot tests, included in the package, will be used to measure results. ▲



The Heart Of The Matter



Barbara Struempler
*Extension Nutrition
Specialist*
*Auburn University,
Alabama*

Heart disease is the number one cause of death in America—and in Alabama. Recent "Heart of the Matter" meetings, however, have motivated Alabamians to make dietary and lifestyle changes that can reduce their risk of developing the disease.

At each meeting, health professionals presented the latest information: A physician gave an overview of heart disease; a registered nurse exercise physiologist spoke on the value of exercise; and an Extension nutritionist presented the afternoon program, "Cooking Lite, Eating Right."

Extension volunteers prepared heart-healthy foods—low-fat versions of lasagna and apple crunch—which were served to participants during mini-breaks.

Positive Feedback

More than 1,700 consumers attended the day-long Cardiovascular Update '86—Heart of the Matter seminars offered in 12 locations throughout the state.

Consumers' response to the meetings were positive. Frequent comments were: "The meeting summarized information I had read in many different sources..." "(The program) motivated me to make positive health changes..." "(The meeting) informed people of the importance of the relationship of health and food, activity, and habits—they all play a part in reducing the risk of heart disease."

According to Escambia County Agent Peggy Bracken, the 32 people who attended in her area were "very enthusiastic about making changes in their lifestyle." One local dietitian who attended says she wishes she could have received educational credit since the program was more informative than many of the continuing education meetings she attends.

Janice Jarrett, Montgomery County agent, wrote, "...another excellent program! The meeting flowed smoothly, the speakers were excellent, the recipes were different enough to be interesting, and, most importantly, the participants loved it."

Promotion Aids

State staff provided marketing packets to help agents promote meetings. Each packet contained newspaper releases, photographs of speakers with cutlines, and radio scripts. Sample invitations for senators, legislators, local government officials, hospital directors, dietitians, and local newspaper and radio contacts were included. The packet also contained a sample letter addressed to physicians asking them to encourage their patients to attend the meeting.

Articles and sample invitations made available on computer diskettes from the state Extension office saved agents a lot in preparation time. They simply filled in the appropriate local information and printed needed copies.

Educational Packets

Each participant received a packet containing educational materials, including publications from Extension and the American Heart Association/Alabama Affiliate; the heart-healthy recipes; a program agenda; and an evaluation form. Most participants indicated that the handouts were "excellent and very educational."

Research Data Gathered

The area meetings allowed Extension staff to collect research data via questionnaires and tests from a large population segment. Analyses of pre- and post-meeting tests taken by participants showed a significant increase after the meetings in their knowledge of risk factors associated with heart disease.

Cooperative Effort

Cardiovascular Update '86 was funded by Alabama Extension; the University of Alabama at Birmingham (UAB) School of Medicine; the UAB School of Public Health; the American Heart Association/Alabama Affiliate; the Alabama Department of Public Health; the Alabama Commission on Aging; the Cooperative Health Manpower Education Program; Food World, a regional grocery store; the Alabama Gerontological Society; and the UAB Center for Aging.

Award Winning Project

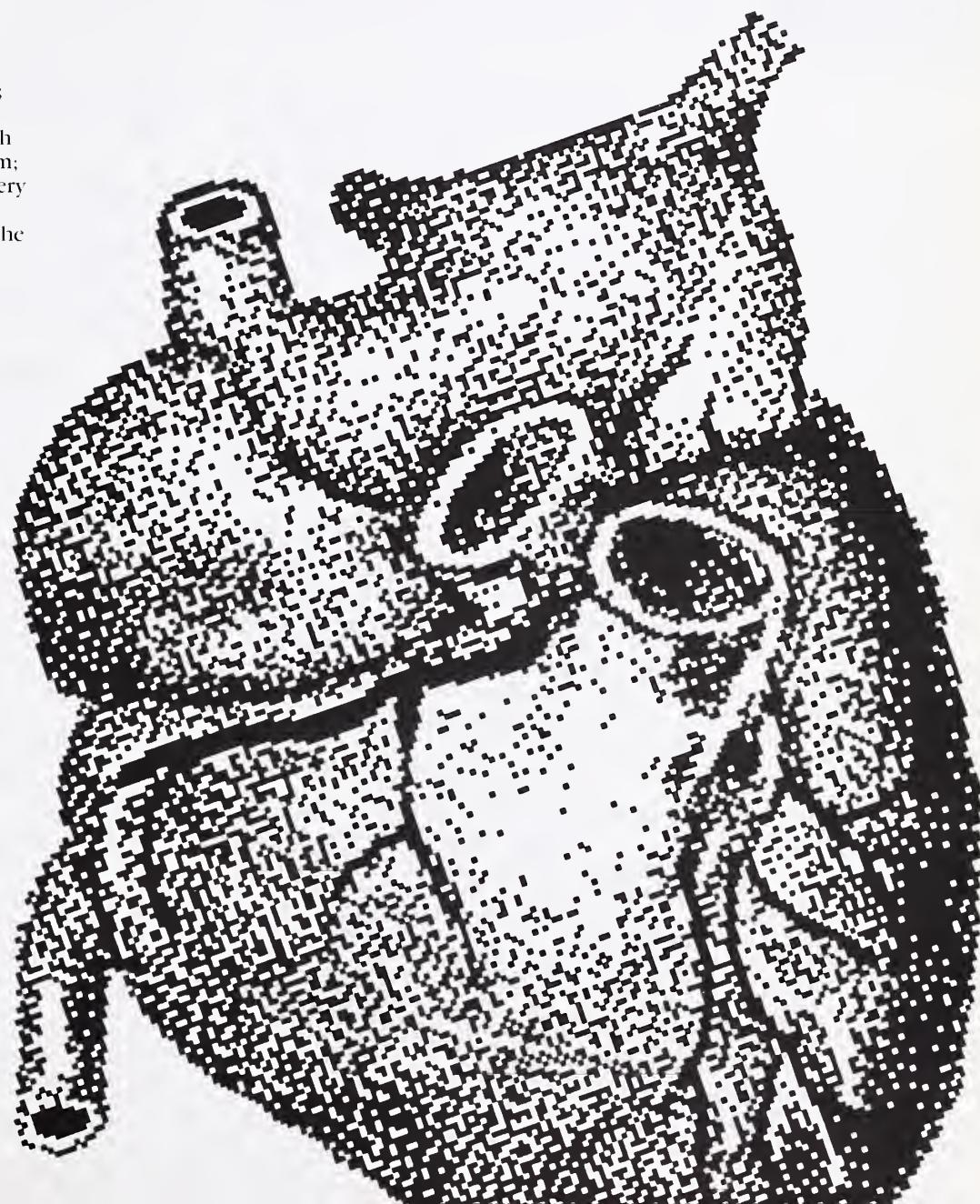
Recently Alabama's Department of Public Health selected the "Heart of the Matter" update as one of five projects deserving statewide recognition in the first annual Alabama Health Education Award Program.

Extension Nutrition Specialist Barbara Struempler will receive recognition for the project at the annual Alabama Public Health Association Conference to be held in Birmingham in May.

Update '87 Planned

Area health update meetings have proved popular in Alabama. They began with Arthritis Update '85. In July, Diabetes Update '87 meetings will be offered. The program format will be similar to Cardiovascular Update '86. □

Opposite top: In 1986, Extension nutrition specialists at Auburn University drew more than 1,700 Alabama consumers to Heart of the Matter seminars to reduce their risk of heart disease. Below: Extension nutrition specialist Barbara Struempler, Auburn University, holds jars representing the average (left) and recommended (right) salt consumption of American consumers. Cardiorasntar Update '86—Heart of the Matter won statewide recognition in the First Annual Alabama Health Education Award Program.



Eating Right Is Basic 2

30 Extension Review

Mary Harvey
Extension Information
Coordinator
Home Economics
ANR Information
Services
Michigan State
University, East
Lansing



Michigan Extension is offering two new food and nutrition education curricula for national implementation. Eating Right Is Basic 2 has a curriculum for adults and one for youths.

In 1982, Michigan Extension received a USDA grant to develop the curricula. This followed recommendations after Congress, in 1979, directed an independent evaluation of the Expanded Food And Nutrition Education Program (EFNEP). The study recommendations, completed in 1982, included the development of core curricula for adults and for youths that could be implemented nationally in EFNEP.

Upon award of the grant, a national curriculum advisory committee was organized. This committee included state, county, and national EFNEP representatives, supervisory home economists, 4-H youth specialists, paraprofessional nutritionists, and program administrators.

Eating Right Is Basic 2 uses a "competency-based" educational approach. First, the advisory committee identified the food and nutrition behaviors they believed to be most essential for adults and for youths. Approximately 160 EFNEP staff members from 23 states reviewed the competency lists. They also pretested selected lessons in the adult and youth curricula. Then, Michigan EFNEP staff developed lessons and evaluation tools for the specific competencies.

Cost-Effective Approach

Eating Right Is Basic 2 is a total learning package. After a homemaker is enrolled in EFNEP, EFNEP administers a needs assessment to determine which skills and behaviors are lacking. Lessons are then tailored to meet only those needs. EFNEP requires 80 percent mastery in post-testing for graduation.

"This approach makes the program more cost effective," says Kendra Anderson, Extension nutritionist and one of the project coordinators.

"Previously, everyone in our state who went through the EFNEP curriculum took the same lessons, no matter what their skill levels. Feedback from Michigan staff members who are using the adult curriculum indicates that the emphasis on skills is the strength of this program."

The adult curriculum consists of 19 lessons. Twelve of these lessons cover such topics as food preparation, meal planning, food storage and sanitation, shopping skills, and basic nutrition. The other seven are special topic lessons covering weight management, maternal/infant nutrition, and gardening and food preservation.

Youth Curriculum

The youth curriculum consists of 12 age-graded lessons. Six lessons cover topics such as basic nutrition, food preparation and storage, and food choices. Six "special topic" lessons cover fast food, food-related jobs, food production, food and fitness, advanced food preparation, and food preservation. Each youth lesson offers a variety of activities. The curriculum is packaged to allow for some structure and a lot of flexibility.

"Though the curricula were developed especially for EFNEP's target audience, Eating Right Is Basic 2 can be used with any audience that is interested in nutrition. Persons of any age or income level can benefit from these food and nutrition lessons," Anderson says. Some of the basic programs that can be offered under the program's umbrella, she points out, are single parent workshops, pregnant teen workshops, and others.

In 1986, Eating Right Is Basic 2 was officially introduced to EFNEP coordinators. Since then, 44 states have ordered approximately 2600 adult sets and 1300 youth sets.

Program Package

Each adult and youth set includes 9 x 12 inch flipcharts with easels, booklets, meal planners, food stickers, camera-ready handouts, and instructor support materials. The youth curriculum package also includes posters, games, and story booklets.

All EFNEP homemakers in Michigan are being taught using this curriculum. During the summer of 1986, EFNEP home economists and paraprofessionals received extensive training, and all EFNEP counties switched to the curriculum in October. That summer the youth curriculum was also implemented in all Michigan EFNEP counties.

For National Adoption

ES-USDA is recommending that EFNEP nationally adopt these unified curricula. This will improve cost effectiveness because it clearly identifies the food and nutrition behavior and skills believed to be the most essential for adult and youth participants. ES-USDA further recommends that the curricula be adopted for other audiences as appropriate. When results of the program are measured and reported, they will be based on the same curricula and methods of evaluation.

For more information on Eating Right Is Basic 2 contact either:

Linda Nierman or Kendra Anderson
Expanded Food and Nutrition Education Program
202 Wills House
Michigan State University
East Lansing, MI 48824 □

Living With Less Sodium

Extension Review 31

The Living With Less Sodium Program teaches participants to actively evaluate and modify their sodium intake at the supermarket, during meal preparation, and at meal time. The 2-hour Extension program offered to consumers in Salem County, New Jersey, presents current information concerning sodium and its relationship to diet and health.

Excess sodium in the diet is believed to contribute to high blood pressure and stroke in some people. High blood pressure is related to the Nation's number one killer: heart disease. An estimated 60 million Americans have high blood pressure or are marginally hypertensive. In 1985 in Salem County, New Jersey, where the Living With Less Sodium Program was researched and developed, 6,500 people out of a population of 64,000 were screened for high blood pressure at a doctor's recommendation.

Marketing The Program

The marketing process was intrinsic in the development of the Living With Less Sodium Program. The first step was to create an awareness of this timely issue.

Before the presentation of the first program, contact was made with editors of the two Salem County newspapers and the general manager of the local radio station. Anne-Michelle Marsden, Extension home economist, authored feature articles for both newspapers about sodium and health and was interviewed by the local radio station for their phone-in talk show.

This use of media, prior to the announcement of the program, created an awareness of the issues surrounding sodium consumption. Consumers were eager to obtain more information which resulted in a high attendance at the programs. Also, media personnel gave priority to program publicity issues.

During the initial stages of this marketing process, the program was pilot-tested at three nutrition sites at the Department of Aging in Salem County.

From Label Reading To Intake

The 2-hour program has been offered seven times to 348 consumers in Salem County. Consumers are taught to recognize the sources of sodium in their diets and modify their intake with practices such as label reading.

Other issues covered include: sodium and its relationship to high blood pressure; sodium's role in normal body functioning; and what constitutes "safe and adequate" intake of sodium according to recommendations by the National Research Council.

The program, illustrated by overhead slides, includes a "Sodium I.Q. Quiz" and five demonstrations to reinforce concepts and encourage class participation. The quiz offers consumers an opportunity to test their knowledge of sodium content in various foods. Both the quiz and the demonstrations show consumers that it is relatively easy to modify some dietary habits.

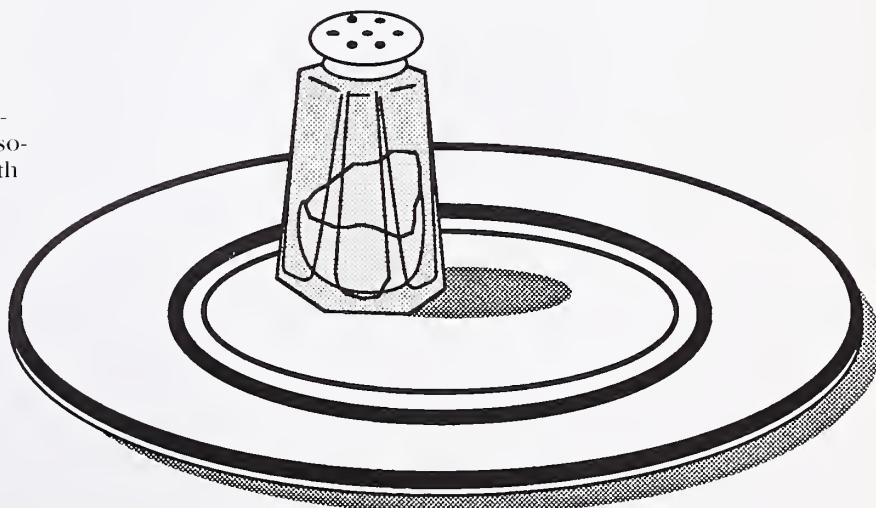
Evaluation And Results

A followup survey sent to program participants after attendance showed an excellent return rate. Ultimately, the survey was returned by 271 consumers or 78 percent of program participants.

According to the survey, most participants had changed their attitudes toward sodium consumption because of the program. Nearly all participants indicated they had changed their eating habits after attending it. Over half of the participants were using less salt when preparing meals and using salt substitutes such as herbs, spices, and other flavorings. Many participants indicated that as a result of the demonstrations they learned which types of food were high in sodium; participants were also now reading labels to ascertain sodium content in foods they purchased.

The Living With Less Sodium Program continues to be taught in Salem County with the aim of reaching new audiences, increasing awareness of sodium, and helping consumers recognize techniques to reduce their consumption. The Home Economics Department of Cook College, Rutgers Cooperative Extension, has endorsed the Living With Less Sodium Program and it will soon be implemented by other Extension home economists throughout the state. ▲

Anne-Michelle
Marsden
Extension Home
Economist
Salem County
Cooperative Extension
Service
Woodstown, New
Jersey



Nutrition Van Go

32 Extension Review

Rose Pruyne
Extension Intern
and
Charlotte Murphy
Extension
Communicator
Agriculture
Information Services
The Pennsylvania
State University
University Park



You don't have to travel far in Pennsylvania to get the latest information about nutrition.

Nutrition Van Go, created by The Pennsylvania State University's Nutrition Education Center, brings up-to-date information to professionals throughout the state. But without the planning ability and expertise of Extension agents and their links in local nutrition networks, Nutrition Van Go's job would be a lot harder.

Nutrition Van Go is a 25-foot, customized van that travels across Pennsylvania and adjacent states. It serves teachers, Extension home economists, dietitians, nutrition aides, food-service directors, and others who need nutrition information.

Cooperative Ventures

"We made 44 trips with the van in 1985," says Suzanne Pelican, former director of Nutrition Van Go. "Seven of the trips were coordinated by Extension home economists in Pennsylvania counties.

"We consider these trips the most successful because Extension home economists are familiar with local nutrition networks and are experienced program planners. Because Extension agents themselves have responsibilities for community nutrition education, our visits to counties are truly cooperative ventures."

"In fact," says Pelican, "we publicize county Extension offices as local information resources on every trip we make with the van, not just on Extension-coordinated trips."

The van is equipped with a microcomputer, filmstrips, slide projectors, a videoplayer and monitor, and several cabinets filled with information files. It accommodates about five people at a time, and visits are

free. Information packets cost \$3 for preschool teachers, \$4 for elementary school teachers, and \$5 for secondary school teachers.

Schools, however, are not the only stops for Nutrition Van Go. On request, it travels to hospitals, senior citizen centers, and community groups.

Van Services

The Nutrition Center staff continually incorporates new material into the van service, and regularly offers workshops for interested professionals.

This year, Nutrition Van Go instructors gave workshops at 10 YMCA clubs in Pennsylvania, teaching coaches and parents about nutrition for young athletes. The Metropolitan Life Insurance Company is sponsoring a contest through Nutrition Van Go for the best display created by a young YMCA athletic team showing information about nutrition for athletes.



Opposite: The Nutrition Education Center at The Pennsylvania State University employs a 25-foot customized van to spread up-to-date nutrition information to professionals in Pennsylvania and adjacent states. At left, top: Inside the van materials are handy to serve teachers, Extension home economists, dietitians, and others who need nutrition information. Bottom: Visits are free to the van which is equipped with information packets, a microcomputer, and other equipment.



Nutrition Van Go staff also worked this year with high-school science teachers to incorporate nutrition information into regular science curricula.

"Our main functions are to act as a resource preview center," says Madeline Monaco, current director of Nutrition Van Go, "and to put teachers in contact with other sources, such as county Extension offices, health departments, and their local dairy council."

"We work with Extension to serve a wide variety of professionals, but we mainly serve educators by giving them information and activities. And that makes their jobs a lot easier." ▲

EFNEP: Education Connection For The Hungry

34 Extension Review



Ellen Schnster
*State Coordinator and
Assistant Program
Leader, EFNEP
Minnesota Extension
Service
University of
Minnesota, St. Paul*

Food shelves, food drives, and food assistance programs all attest to our Nation's concern for the hungry. The need is real. Last year in Minnesota, for example, about 1.25 million food shelf visits were accommodated, nearly 40 percent more than the previous year. Fully one-third of Minnesotans living in poverty must rely on food shelves to meet some of their nutritional needs.

Is there a connection between hunger and education? Is the long-term educational approach to beating hunger—a key part of the success of the Expanded Food And Nutrition Program (EFNEP) since its inception—assuming a diminished role?

The Expanded Food and Nutrition Program (EFNEP) does not provide food or money to its participants. Instead, EFNEP provides nutrition education in one-to-one or small group sessions. All that it requires of its participants is a willingness to learn. EFNEP strives to provide the information and skills to improve people's lives through the use of paraprofessional instructors, many of whom come directly from the low-income communities they serve. Lessons concentrate on improved nutrition, food buying and budgeting, meal planning, food preparation and sanitation, and food preservation and gardening.

The skills and information that EFNEP imparts can enable the program graduates to decrease

their dependence on food assistance programs and food shelves. This is vital at a time when food shelves, which began as temporary emergency measures, are becoming permanent resources for those without food.

Valuable Skills
Shirley Baugher, assistant director of Extension home economics and Assistant Dean of the College of Home Economics at the University of Minnesota, comments: "Once again we can see that a home economics program such as EFNEP allows individuals and families to gain self sufficiency skills and knowledge that are valuable to themselves and their community."



Opposite: Southeast Asians are just one of the ethnic groups EFNEP works with and food preparation is an integral part of the teaching to make full use of donated and other foods. At left: FFNEP teaches both adults and youths about food and nutrition—one of the ways in which it is a unique program.

Comments such as the following attest to the way EFNEP makes a difference in the lives of its participants:

"EFNEP has been of great value to my family in the area of health. Because of the things I have learned my 19-month-old son has been given a good start in life."

"The EFNEP program has helped me to make my money stretch to the end of the month."

"Since I went through all the EFNEP lessons I can stay off Welfare. I have a job now and I don't need Food Stamps anymore."

Brochure Series Begins

Last year, Minnesota Extension launched the first of its FYI (For Your Information) series of brochures. The first issue was devoted to the connection between hunger and education and Extension's role in that linkage.

The FYI brochures focus on issues that are pertinent to home economics programming. Their intended audience includes policymakers, legislators, personnel from other agencies, and local Extension committee members.

The FYI brochure, "Hunger And Education—The Connection" drew a strong response. Extension staff members in each of Minnesota's 87 counties reported their small shipments were used up quickly. An EFNEP program in one other state is considering adapting the brochure for its use.

EFNEP: Vital Link

EFNEP continues to instill self-confidence and pride in its participants. "I was convinced I couldn't change my way of life," said one EFNEP participant. "But after I began learning about nutrition through EFNEP I began saving money and feeding my son and myself better. Graduation was a stepping stone for me. I wanted to accomplish much more, and with the encouragement I had received, I felt that I could do it."

As one agency professional emphasizes when commenting on EFNEP as Extension's link between hunger and education: "EFNEP is not a 'give-away' program. It is a training and education program for those who really need it. This program is an effective way to help people get out of the welfare cycle."

For further information on obtaining a sample copy of the FYI brochure contact:

Ellen Schuster
State EFNEP Coordinator
Minnesota Extension Service
Phone: (612) 624-7479. ▲

Food And Fitness By Mail



J. Lynne Brown
Extension Nutrition
Specialist
*The Pennsylvania
State University,
University Park*

Pennsylvanian Donna Ebhart, the mother of several small children, was concerned about the calcium intake of her family but had no time to attend meetings at the local Extension office. When she saw an ad for an Extension learn-at-home lesson on calcium, she ordered it.

Now Ebhart wants Extension to offer more of these learn-at-home lessons. They provide her the convenience of learning at home when she has time—plus, she doesn't have to hire a sitter.

Ebhart represents one type of audience, mothers with young children, to whom learn-at-home lessons appeal. Others who like this delivery method include those who can't drive or who are fair-weather drivers, people who are home-bound, and working parents.

Focus On Food And Fitness

In the early 1980s, Pennsylvania county home economists began noticing dwindling attendance at meetings. In 1983, state Extension Nutrition Specialist Lynne Brown discussed developing a food and fitness program with members of the Pennsylvania Extension Family Living Nutrition Task Force. They suggested using learn-at-home lessons as the delivery method.

As a result, Pennsylvania has been offering learn-at-home lessons on food and fitness topics for 3 years. During this time, their use and popularity have grown. Topics covered include the role of fiber, fat, complex carbohydrates, iron, calcium, and vitamin A in maintaining health; weight control; food shopping tips; exercise; health-promoting snacks; and calcium-rich foods and osteoporosis (a condition that decreases the body's bone mass).

County home economists provide Brown with suggestions for lesson topics. All lessons have the same format: an introductory letter, a pretest, a background information section, a worksheet, and a posttest with a few evaluation questions.

Using The Lessons

Home economists have made innovative use of these lessons. In Monroe County, Dawn Olson offered the lessons to Extension clientele through her normal newsletter channel the first year they were available. When a bank officer on her mailing list contacted her about providing these lessons to bank employees as part of a worksite wellness program, she enthusiastically agreed. She offered the lessons coupled with a computer analysis of a 24-hour dietary recall. Bank personnel handled advertisement, registration, and the distribution of materials while Olson completed the dietary analyses.

Ten percent of the bank employees completed at least one lesson. Of these, 85 percent reported making one positive change in their food habits.

For the majority of participants, this was their first contact with the Monroe County Extension Service.

Other home economists have used the lessons with selected Expanded Food and Nutrition Education Program (EFNEP) families, as an offering at point-of-purchase educational displays in supermarkets, with homemaker groups, in "Safe Slimming" classes, and with private weight control groups such as TOPS.

Evaluation Strengthened

In 1986, Brown developed a more extensive evaluation of the impact of a specific lesson, "The Calcium Game," distributed that year. The lesson emphasizes the value of dairy products and other foods as sources of calcium, and addresses the role of exercise and supplements in reducing one's risk of osteoporosis.

Twenty counties mailed 1,700 copies of the lessons to clientele, and received 410 pre- and posttests, a return rate of 25 percent. After studying the lesson, those responding gave correct answers to an average of 5 more questions on the 10-question test.

Eight weeks after home economists distributed the lessons, each conducted telephone interviews with a sample of 10 participants. Of 128 women completing the telephone interview who read the lesson, 82 said they learned something new from the lesson. A number of those interviewed said they were surprised to learn they were not consuming enough calcium. Sixty-nine percent reported the lesson inspired them to make changes in their personal habits to improve health. The most commonly reported changes were increasing or monitoring calcium-rich food intake. Fewer reported starting an exercise program and using calcium supplements.

Participants said they favored learn-at-home lessons almost two to one over meetings, and seven to one over videotapes. Since much of Pennsylvania has been severely affected by the decline of the coal and steel industries, videocassette players may not be as plentiful here as in other parts of the country where the local economy is healthier. Thus, learn-at-home lessons are a cheaper alternative.

Commitment Reinforced

Results of the evaluation reinforced Extension's commitment to use the learn-at-home delivery method to reach busy Pennsylvanians. The majority of participants who use the food and fitness lessons learn new facts and change behaviors affecting their health. Clearly an increasing number of Extension's clientele like the convenience of learning on their own. ▲

Irradiated Foods—A Hot Topic

Extension Review 37

What's for dinner in the year 2000? Irradiated chicken breast? X-rayed strawberries for dessert?

This possibility is not far fetched, says Richard Matthews, Extension food scientist with the University of Florida's Institute of Food and Agricultural Sciences. "Irradiating food to preserve freshness could become as common as canning, freezing, or microwaving by the year 2000," Matthews believes.

Exposing some fruits and vegetables to low doses of radiation—the first step toward the dinners of tomorrow—has been approved by the Food and Drug Administration (FDA) and a few irradiated food items may show up on supermarket shelves as early as next year. Since 1983, irradiated dried spices and seasonings have been used in some salad dressings, sausage, and frozen foods.

"Irradiated food items are probably not going to be a hit with consumers right away," Matthews says. "At best, consumer acceptance will be slow. I believe the food industry itself will be conservative about adopting this new technology."

Radiation And Consumer Reaction

"Radiation is a scary word to many people," Matthews says. "Many people wince at the thought of consuming anything treated with radiation, even though there is absolutely no radioactivity created in the food from the process. A person doesn't become radioactive from dental x-rays and foods do not become radioactive from this process."

Consumers will be able to identify irradiated foods, Matthews points out, by looking for a new international logo on the food item. The logo must be accompanied by the words "treated with radiation" or "treated by irradiation."

Phrases such as "to control spoilage" or "to extend shelf life" also may be added.

The food treatment process is a simple one. Foods are placed on a conveyor that exposes them to radiation inside a shielded chamber. Gamma rays from cobalt 60 or cesium 137 can be used or foods can be exposed to x-rays or high velocity electrons. Once exposed to these low doses of radiation, foods must still be refrigerated and handled like regular foods not treated with radiation.

Food processors and members of the nuclear industry claim that irradiation is a safe alternative to pesticides, fumigants, and preservatives for controlling mold and other microorganisms. Low doses of radiation will be used initially on potatoes, onion, and some fruits to prevent maturation, kill insect pests, and extend shelf life.

New FDA Regulations

The new FDA regulations permit a "low dose" of radiation of up to 100,000 Rads or one kiloGray. (Rads and Grays are measures of radiation energy.) The next step, according to Matthews, would be a dose of 10 kiloGrays that could be used on meats, shrimp, and other food products to destroy non-spore-forming bacteria like salmonella that cause food poisoning.

An even higher level of radiation—up to 50 kiloGrays—eventually may be approved to sterilize a product, Matthews says, but approval of the 50 kiloGray level is not likely anytime in the near future.

"More research is needed on what chemical or flavor changes occur in foods exposed to these high levels of radiation. The molecular changes that occur in foods at the FDA-approved one kiloGray level



are minimal—less than those that occur when foods are cooked or canned," Matthews explains.

One way to reduce chemical or flavor changes, he points out, is to keep the food product cool when exposed to radiation. Also, the lower the level of water in the product, the less chemical change. This is one reason dried spices were approved for irradiation in 1983.

At least 10 different agencies, including the World Health Organization and the American Medical Association have concluded that irradiated foods pose no risk to consumers. The U.S. Institute of Food Technologists, for which Matthews is a spokesperson, also has committed itself to a public education campaign on the process.

To date, 20 nations have approved the use of irradiation of foods, some up to the 10 kiloGray level, on the following products: chicken, frozen shrimp, frog legs, papaya, mangoes, strawberries, dates, onions, potatoes, bananas, and rice. □

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TREATED BY
IRRADIATION

An International Agenda In Food and Nutrition

38 Extension Review

Nancy Leidenfrost
National Program Leader, EFNEP Extension Service, USDA

A learning situation in Belize, Central America. Belize is just one of the international areas where food and nutrition specialists conduct a project which contributes to the quality of life of the population.

Extension home economists can make a vital contribution to international development programs, either through collaboration in the agricultural sector, or through establishing independent programs. Their concern for families, the human condition, and the environment, as well as their efforts to meet food and nutrition needs in developing countries is directly connected with "development".

For many years home economists have been involved in international work, contributing significantly to the quality of life of families through their work. For this article we have identified only a few of the food and nutrition projects which Extension home economists and nutritionists currently conduct around the world.

Many of Extension's food and nutrition specialists hold joint Extension and research appointments which probably has lead to increased involvement in projects which require both.

Belize Project

James W. Nordstrom, food and nutrition specialist, Lincoln University, Missouri, serves as director on the "Nutritive Value of Leafy Green Vegetables Grown in Belize" project. Funded by AID, this project was developed in response to concerns by health officials in Belize, Central America, about possible vitamin and mineral deficiencies in their population. Preliminary surveys suggest that eating more fruit and vegetables—especially leafy greens—could help alleviate this malnutrition.

The fertile soil and favorable climate of Belize produces a wide variety of fruits and vegetables. The project objectives are: to identify domesticated and wild edible plants that are either presently utilized or have a potential as green, leafy vegetables in Belize; to determine the nutrient content of leaves and stalks of edible plants grown in that country; and to assess the amount and frequency of consumption of greens by small farm families in Belize.

Samples of plant leaves were collected and are being analyzed in Lincoln University's laboratory for nutritional content. Dietary information, collected during the past year, provides base line data on nutritional status as well as giving an indication of fruit and vegetable utilization in diets. The sample population was based on a random selection of children attending six different village schools. A trained school teacher collected 1-day food recalls on 90 school children, or a younger pre-school brother or sister and/or the mother or main food preparer of each family. Nordstrom worked with a nutrition council of educators and public health personnel to



distribute radio and newspaper releases encouraging the eating of a more balanced diet in Belize. Other educational interventions are planned when the study is completed.

Hawaii Projects

Nancy E. Johnson, chair of the Department of Food Science, Human Nutrition, University of Hawaii, is involved in a campus-based project, with a graduate study of calcium bioavailability and aluminum toxicity in Guam. She also has a commitment from Wisconsin, as an adjunct professor at the Institut Agronomique et Veterinaire Hassan II, Rabat, Morocco, to work on a project to compare food balance sheet data and food consumption data to make projections about future food availability in Morocco. Johnson has also served as a curriculum consultant on a community nutrition program in Indonesia, collaborated with colleagues on research in community nutrition in Brazil, and conducted a case study of national nutrition programs in Sri Lanka.

Mary Keith, Extension specialist, foods, served as a member of AID's University of Illinois design team to Peshawar, Pakistan. Keith evaluated the situation and made recommendations for the NWFP Agricultural University development plan relative to women's roles at the university, in agricultural production, and in the food processing industry; and related need for and means to increase Extension/outreach to rural women. Work was conducted in the departments of Food Science, Agricultural Chemistry (effectively nutrition), and Extension education. Since the final signing of the agreements, Keith has been involved in the search committee for the Extension/Outreach coordinator position.

Other Projects

Evelyn F. Crayton, Extension foods and nutrition specialist, Alabama, trained 16 Peace Corps volunteers heading for assignment in Tunisia, Cameroon, the Central African Republic,

Morocco, and Niger, in home food preservation and food safety. They received intensive 2-day training in canning, freezing, drying, and smoking of fish, plus packets of training materials to take to their host countries.

Crayton also worked with faculty and staff of the School of Fisheries at Auburn University who provided information on fish biology, processing, preservation, pond construction and engineering, aquaculture systems, and Extension aquaculture philosophy and methods for the Peace Corps Inland Captive Fishery project.

Patricia Wagner, Florida nutritionist, was involved in a field observation in the Republic of Cameroon, in the area of integrating human nutrition in the agricultural curricula of the University Center of Deschang. Doris A. Tichenor and Barbara E. Taylor, also from Florida, were the principal investigators on a study to analyze the need and potential for the introduction of a home economics curriculum at the University Center of Deschang in a project sponsored by AID.

The study revealed an acute need for more adequate agricultural extension services for women, not only to assist them in food production and marketing practices but also with their household responsibilities of food management, nutrition and family health, and child rearing.

Data gathered from personal interviews and discussions strongly reinforced the need for a home economics curriculum that could prepare women professionals at the mid-management level to coordinate and train field technicians to work with women in local communities in these areas. The study also clearly defined the need for a non-traditional home economics curriculum focused on the specific needs of women at this stage in the development of Cameroon. This field study recommendation was submitted to University Center of Deshang for consideration.

Ruth D. Harris, Virginia Polytechnic Institute and State University, served as chief of a 2-year institutional "strengthening" project in Guinea. The project developed a strategy for increasing the agricultural food productivity of small landowners in Guinea through an Extension model. The project was sponsored by AID, while Virginia Tech, North Carolina A&T, and Fort Valley College were involved in projects through the Southeast Consortium for International Development. The four food components focused on during the project included rice, vegetables, cassava, and corn. No Extension infrastructure existed in Guinea to reach the people. To implement the project a model, based on our United States Extension program, was employed.

In a Peruvian project funded by IRI Research Institute in New York, Guillermina Valdez,

EFNEP home economic specialist in Texas, helped organize "Clubes de la Mujer Rural" (CMR), a similar organization structure to our Extension women clubs. She used this structure to teach rural women how to plan balanced diets and improve home sanitation practices and other related home economics skills. "Social promoters" were hired to organize the club and to deliver the educational program. Valdez taught the "social promoters" motivational techniques in rural development, leadership development and methods, and information needed to teach food and nutrition and related home economic subject matter.

Margaret Lewis, Extension Oregon nutritionist, served as chair of the Agriculture/Fisheries Committee for Oregon's "Partners of the Americas". Oregon and Costa Rica have been partners for 20 years. The Committee has funded projects for developing family and community gardens and raising rabbits.

EFNEP-related Programs

EFNEP delivery methods have proven to be the applicable in other countries. Janice McRee, South Carolina, home economist and Michigan Extension Home Economists, Margaret Bucklin, Arleen Mills, Marian Prince, Julie Michael, Dawn Harris, and EFNEP aide Josie Taube have all accompanied their Partners of Americas counterparts to Columbia, Belize, and the Dominican Republic to conduct field observations, and to help plan and implement workshops using EFNEP teaching concepts.

Extension home economist Geri Peeples, Saginaw County, Michigan, worked with counterparts at the Grenada Food and Nutrition Council to initiate a new project of popularizing local fruits and vegetables, according to Mary Andrews, director, International Extension Training Program at Michigan State University. With marketing of local products underdeveloped, many island consumers preferred imported foods. Expanding the use of local produce is a major goal of the agricultural sector.

A 2-week staff training workshop, conducted by Geri Peeples and Maria Noel, Food and Nutrition Council coordinator, provided hands-on experience in assessing educational needs, developing strategies, designing demonstrations, and preparing resource materials. Peeples also shared with the Grenada staff the Michigan-developed USDA curriculum for EFNEP, "Eating Right is Basic".

Katherine P. Riddle, Women in Development coordinator, International Programs, and Nebraska's Extension specialist in Food and

Nutrition has recently retired, but she is still concerned with the improved nutrition status of women and their families both in this and in less developed countries. Before coming to Nebraska she worked in Nutrition Projects in India and China and has since been Nutrition consultant with projects in African countries. She helped to establish a Nebraska Nutrition Network for local groups (including home economics) concerned with the status of nutrition and programs for nutritional improvement. This same group has expanded vision to consider breastfeeding promotion, participation in World Food Day activities, and global food-related issues.

She developed an 18-page study booklet "Women and the Development of the World" which is available at no cost through International Programs, IANR, 210 Ag Hall, Cooperative Extension Service, University of Nebraska, Lincoln, Nebraska 68583, as part of a study lesson for home Extension clubs.

Solar Drying Project

Through the Agency for International Development (AID), staff from the University of Idaho Postharvest Institute for Perishables (PIP) were requested to work with the Philippine Root Crop Research and Training Center (PRCRC) of the Visayas State College of Agriculture (ViSCA) in the Phillipines. ViSCA requested assistance in developing and implementing a training course on the Preservation of Tropical Fruits and Vegetables by Solar Drying with Supplemental Heat. Marilyn A. Swanson, Extension food and nutrition specialist, and Kenneth D. Hoyt, training coordinator at PIP, became resource personnel for the project.

Swanson and Hoyt developed and tested a prototype dryer including a fire chamber that provided supplemental heat from renewable energy sources such as coconut husks, charcoal, and wood. After testing a variety of foods under various weather conditions modifications to the original model were made. After running drying trials, they designed a training manual which included class schedule, outline, reference materials, supplemental heat sources, food preservation techniques and practices, and bibliography.

Next they trained 15 university staff from agriculture engineering, food science, home science, and rural Extension. The course included demonstrations and hands-on experience in solar dryer construction, operation, food preparation, drying procedures, storage of dried foods, rehydration, and utilization of foods.

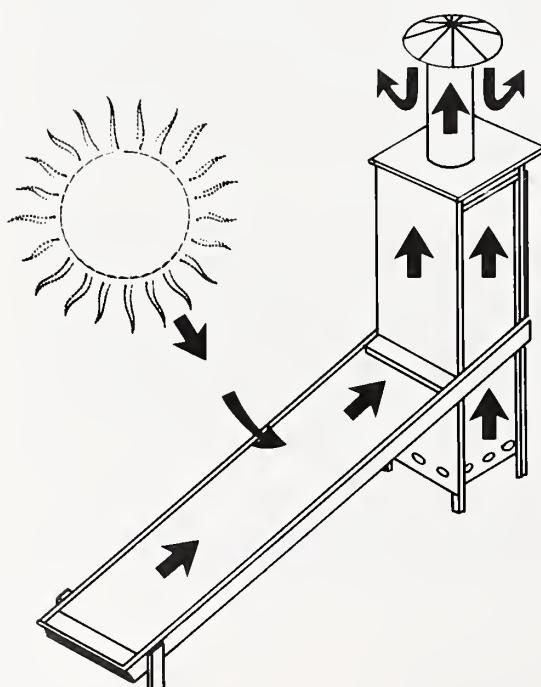
After modifying the dryer based on this initial training, the team began a community planning effort working with three Philippine communities, each working with a PIP-trained team from the university. After this training, both the PIP and ViSCA participants evaluated the dryer and training and incorporated new ideas and methods.

World Food Day

Across the country, Extension home economists participate annually in World Food Day activities. The Alabama Food and Nutrition Home Economics staff each year co-sponsors the day-long World Food Day satellite teleconferences on October 16 at Auburn University. Study packets are prepared for county staff and news releases inform the public and invite their involvement in the satellite program. Local and national food related issues are discussed during the satellite teleconference.

"Women in Development" committees were first established on campuses in 1983, often initiated by Extension staff. These groups promote international efforts, and study issues that impact on women in developing countries. The committees serve to support and provide cultural experiences for international students, and create awareness in the general public. By doing this, these committees were, in many cases, the forerunners of development education.

Extension Home Economics should continue to find and expand its role in International Development. It can enable individuals to obtain access to skills and knowledge, to increase their productivity and well being, and foster human resources development which affects future generations. ▲



Extension specialists in the Philippines developed and tested a prototype solar dryer for tropical fruits and vegetables. After modifying the dryer, Extension trained a university staff who introduced the dryer to three Phillipine communities for training and incorporating new ideas and methods.

Home Food Preservation: Alive In Washington State

Home food preservation is far from a dying art in Washington State. For a variety of reasons, home food preservation is still widely practiced. Washington State home food preservers were surveyed to find out why they preserve foods, their sources of food preservation information, and other data. See Tables 1 and 2 accompanying this article for some of the significant findings of the survey.

The survey group consisted of 592 participants who were randomly selected from a list of persons who had received food preservation information from Extension in the state of Washington.

Who Preserves Food?

Most of the persons who participated in the study were experienced home food preservers. Sixty percent had been preserving food more than ten years and only 7 percent had less than two years experience. Almost all were female (96 percent) and married (88 percent). Forty percent were between 20 to 39 years old; 43 percent were between 40 to 64 years old; and 17 percent were over age 65. Almost all of the respondents (92 percent) had finished high school and 27 percent had completed college. More than half (56 percent) had an income greater than \$20,000 per year.

Value of Preserved Product
The average market value of the foods preserved at home was \$485 per household per year. If these respondents are typical of the 65,000 persons who receive food preservation information from Washington Extension each year, then the total market value for food preserved by Extension clientele exceeds \$30 million. If these respondents are typical of home food preservers nationally, then the total market value for foods preserved by American households exceeds \$14 billion.

Table 1
Why Do People Preserve Food?

Respondents Reasons For Preserving Food	Very Important percent	Somewhat Important percent	Not A Factor percent
Foods taste better	75	22	3
Foods are better quality	70	23	7
Personal satisfaction	58	35	7
Prevents food waste	54	29	17
Allows wider food variety	44	36	21
Saves money	43	42	14
Meets special diet needs	17	12	71

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Extension Food Specialist
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Table 2
Where Do Home Preservers Get Their Information?

Information Sources	Use Frequently percent	Use Regularly percent	Use Occasionally percent	Almost Never percent
Canning company publications	42	27	23	8
Extension and USDA publications	22	18	48	12
Relatives	12	9	46	33
Magazines and newspaper articles	5	11	50	35
Extension workshops	5	4	25	66

Note: Percent does not total 100 percent because many respondents obtain their information from more than one source.

Summary

The survey shows that in Washington State the primary reasons for preserving foods are related to personal satisfaction from producing high quality foods.

The primary sources of food preservation information are publications from canning companies and Cooperative Extension. (See Table 2). Much of the preservation information in canning company publications originally derived from USDA and Extension publications.

Most home food preservers use recommended methods. Persons under 40 years of age are more likely to know and use correct food preservation practices than their elders. Twenty-nine percent of the 592 persons surveyed had recently made changes in their food preservation practices in order to adapt their practices to USDA recommendations. □

Fun With Food And Fitness

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Extension Home
Economist
and
Gregory J. Matysik
4-H and Youth Agent
University Extension
Fond du Lac County,
Wisconsin



Like most Americans, Wisconsinites need to be poked and prodded into eating better and exercising regularly. But Fond du Lac County Extension staff have discovered that incorporating some fun into their nutrition and exercise program is effective in getting their message across to a wide variety of audiences.

The program, "Fun With Food and Fitness," combines songs, skits, and the audience's involvement to motivate participants. Since the program began in 1983, it has reached over 2,500 youth, volunteers, Extension professionals, and school and community groups around the state.

What started as a 2-hour program in one Wisconsin county has developed into a 28-minute video, a peer teaching program, in-service training for professionals, and a curricular package for schools and community groups throughout Wisconsin. "Fun With Food and Fitness" is a joint programming effort between Wisconsin Extension's Youth Development and Family Living Education areas and the United States Department of Agriculture.

Program Content

The program addresses four specific areas:

Thinking Fit, Acting Fit, Eating Fit, and Fitting It All Together.

Thinking Fit helps participants examine their attitudes and beliefs about nutrition and exercise through an "attitude survey" they complete. The survey compares attitudes of participants to their actual behavior. Next, simple tests to determine body fat percentages are demonstrated.

Acting Fit addresses the four types of exercise: flexibility, muscular strength, muscular endurance, and cardio-respiratory endurance. Participants determine their target heart rate zone; evaluate their own fitness level through completing a "How Fit Are You?" test; and make plans for a personal exercise program by completing an exercise contract.

Eating Fit focuses on the seven dietary guidelines for proper nutrition with special emphasis given to maintaining desirable weight and reducing the amount of fat, sodium, and sugar in one's diet.

Fitting It All Together summarizes program highlights and explores the concepts of energy balance, calories, and the research link between diet and exercise. Participants test their knowledge of exercise and nutrition by playing the game, "In Pursuit of Food and Fitness."

Videotaped Program

After co-teaching the program for almost a year, 4-H and Youth Agent Greg Matysik and Home Economist Nan Baumgartner received a \$2,000 grant to transfer sections of the "live" program onto videotape. The video program features "Little Richard Slimmons" who, along with Dr. Fred Smith, explores energy balance, target heart rate, and basic warm-up exercises.

"Our Magazine" star "Julia Shilds" and host "Gary Collards" discuss the benefits of nutritious snacking, while the "\$10 Pyramid" game show introduces the Seven Dietary Guidelines to viewers. Baumgartner and Matysik respond to common nutrition and fitness questions in "Talking It Over With Greg and Nan." There's even a music video segment to let viewers know "there must be 50 ways to lose your blubber."

The video currently is available to Wisconsin Extension agents through the state Extension library.

Peer Teachers

The video program opened doors to a greater variety of clubs, organizations, and individuals. To extend the program further, Baumgartner and Matysik began a "peer teaching program." In cooperation with home economics teachers at a local high school, they recruited six Future Homemakers of America—Home Economics Related Occupations (FHA-HERO) students to become volunteer peer food and fitness teachers. Matysik and Baumgartner provided them 6 weeks training in both subject matter and teaching techniques.

In Service Training

Youth, families, and communities are not the only ones benefiting from involvement in the food and fitness program. Recently, Baumgartner and Matysik cooperated with the Wisconsin Dairy Council in presenting in service training to high school and elementary teachers in a local school district.

Making Lifestyle Changes

Evaluation results from program participants show that they are making positive changes in their lifestyles. In a followup survey with a group of local 4-H leaders, 69 percent felt that as a result of attending the program they were continuing to learn more about how exercise and fitness can improve their health. Fifty-eight percent say they've made changes in the kinds of foods they prepare for themselves and their families. A

Fitness 7—a comprehensive health and fitness educational program—has become one of Michigan's most popular home economics programs, because of cooperation between Michigan and Alabama Extension in 1983.

Michigan Extension learned about the Fitness 7 Program—which Alabama Extension developed with a USDA grant—at a time when Michigan's governor called for a state-wide health promotion conference. The conference's major recommendations urged agencies to approach health education from a holistic viewpoint.

Fitness 7 materials fit in very well with conference recommendations, says Doris Richardson, Extension home economics program leader at Michigan State University. With the full cooperation of the Alabama staff, Richardson revised the materials for Michigan.

"Alabama Extension was very cooperative and excited about Michigan's doing this," Richardson says. "At that time, we were the first state to approach them about using their materials in a major way."

New Unit: Environment

Michigan made one major change in the units: nutrition and weight maintenance were combined in one unit and a new unit was created on environment.

"We wanted to keep it seven units to use the logo and the title," says Richardson, "but we did want to fulfill the mandate of the governor's conference and have a unit on environmental issues and how they affect health."

The environmental unit, she points out, deals with families and the effects of toxic chemicals in their lives. For use with the exercise unit, Michigan added a bulletin on walking whose material originated in Virginia. Last year, 6,000 of these bulletins were distributed.

Health Risk Appraisal

The Fitness 7 Program uses the Health Risk Appraisal form as an integral component. Participants fill out the appraisal, which is then analyzed by computer. The appraisals are then used as a starting point for the program.

Richardson notes that the biggest drawback to using the appraisal was the expense. "Each appraisal cost close to \$5, which put it out of the reach of many elderly and low income persons," she says.

Computer specialists at the university adapted the program to floppy disk and made it available to all home economists.

"This adaptation to microcomputer has really expanded the program," Richardson says. "We've found that volunteers are an ideal group to process the appraisal forms. The computer program is easy, but it is time-consuming to run."

As an essential component of Fitness 7 in Michigan the program is always delivered with a health professional—a nurse, doctor, or health educator. "We feel that the appraisal needs to be interpreted, not just handed out," Richardson says. "We are dealing with health risks that can be modified."

Extension at Michigan State University has discovered that the Fitness 7 Program has greatly expanded Extension contacts in the local health communities. Also, many small business owners have

approached the home economists to ask for programs in health education.

The Michigan Association of Extension Homemakers has also adopted components of Fitness 7 for use in their study clubs. Homemakers have used the program as an opportunity to forge linkages with local health agencies.

Since 1985, 14 different counties (out of 83) have offered the entire Fitness 7 Program to 600 participants. Individual program components have been offered 107 times and reached approximately 10,000 people. Nearly 200,000 copies of the bulletin have been distributed to date.

A Popular Program

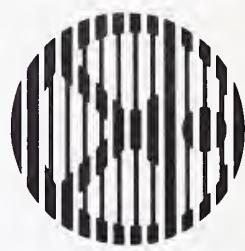
"One reason the program has been so popular," Richardson says, "is that Extension was the first agency to provide a complete health-fitness package. But we couldn't have done this without the head start provided by the Alabama materials."

Richardson estimates it cost approximately \$3,000 to adapt the materials to Michigan. This includes a quarter-time salary for six months for editorial help when having the bulletins revised.

For more information about the Fitness 7 Program contact:

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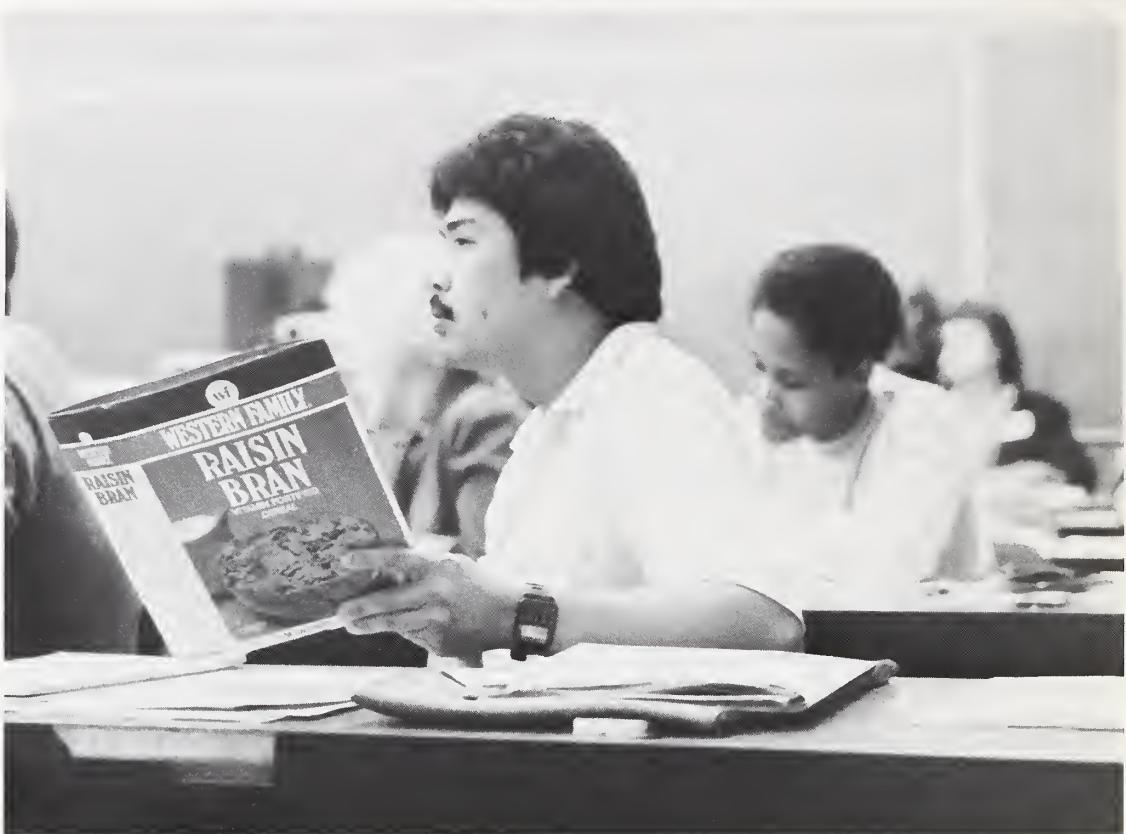
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Wellness Workshop— Class Acts In The Classroom

44 Extension Review

Nancy Kershaw
4-H Extension Agent,
Washington County
and
Susan Baumgartner
Former Extension
Agent, 4-H
Oregon State
University

Opposite: Participants discuss computer-generated health assessments with resource people from St. Vincent hospital in Oregon. Above: The workshop "Making Wellness Fun For Kids," organized by Extension 4-H and EFNEP in the Portland area, is fun for the elementary teachers who learn inexpensive methods of making nutrition instruction enjoyable.



Cereal box labels. Puppets and computers. Nutrition games and experiments. These were some of the features of the second annual Extension-sponsored inservice workshop for teachers: "Making Wellness Fun For Kids." The workshop, a fun subject for the teachers as well, was organized by a group of Extension 4-H and EFNEP (Expanded Foods and Nutrition Education Program) agents in the Portland metropolitan area.

The idea behind the workshop was to highlight Extension at Oregon State University as a source of effective materials for teaching nutrition and related subjects. The workshop, conducted in cooperation with the Oregon Department of Education, trained elementary school teachers to use EFNEP/4-H materials in the classroom.

For years, Extension at Oregon State University has been successful in spreading the message of "good health"—many educators in other states now use the EFNEP/4-H materials in their elementary classrooms. But as Carolyn Cannon, Multnomah County EFNEP Extension agent, pointed out in 1984, despite the wide usage there were problems.

"Oregon State University EFNEP materials are nationally recognized," Cannon stated then, "but teachers often receive them without getting the nutrition background and tools to use the materials effectively."

Brainstorming Session

Cannon brainstormed with Michael Holroyd, Extension youth EFNEP/4-H specialist, and the teacher inservice idea was born. The planning team grew to include three 4-H agents from the Portland metropolitan area: Linda Erickson, Clackamas County; Gilbert Shibley, Columbia County; and Nancy Kershaw, Washington County.

This group set three goals: to train and encourage elementary school teachers to use EFNEP and 4-H materials; to create an awareness in the educational community of Oregon State University Extension as an educational resource; and to increase teacher participation in the Oregon Department of Education Inservice Program.

In October 1985, cooperating agents taught the first workshop, "Making Nutrition Fun For Kids," during a statewide teacher inservice day. The Oregon Department of Education publicized the session through its listing of inservice training programs. Agents sent promotional fliers to



elementary school teachers. The four-hour workshop was attended by 87 teachers from 11 different school districts, including two from Washington State.

Upon registration, participants received resource packets, samples of Extension publications, enrollment information for 4-H School Enrichment, and instructions in ordering publications. The teachers worked in small groups and rotated through five different learning stations: nutrition games; snacks; experiments; puppets; and computers. Each session was taught by one of the cooperating agents, and teachers were allowed to try the practical ideas out.

Evaluation

After the workshop, participants completed a written evaluation. The inservice workshop received "high grades."

The workshop drew such comments as the following:

"The sessions were brief, but informative and inspiring . . ."

"I liked the active participation. There was no wasted time. This was really appreciated by busy teachers."

"The handouts were very useful."

"The workshop was an added boost to my present effort to improve the nutrition of my own family."

About one-half the participants stated they would attend the workshop again and a third expressed

an interest in a similar workshop on health and fitness. Five teachers volunteered to field test new nutrition materials.

The success of the 1985 workshop generated enthusiasm for another the following year. In 1986, the theme was expanded to "wellness" and included nutrition, fitness as a lifestyle, and stress management. Other agencies were invited to participate, and the workshop was approved for Teacher Inservice Credit required of Portland School District teachers.

The four-hour workshop, "Making Wellness Fun For Kids," was held as part of a statewide teacher inservice day, and featured exhibits and educational materials by National 4-H, the American Cancer Society, and the Oregon Dairy Council. Phillip O'Neil, professor of Human Development Education and Family Studies, Oregon State University, opened the workshop with a general session focused on the inter-relationship of nutrition, fitness, and stress. Then, the 67 teachers were split by grade level to attend sessions on stress management and nutrition.

Accent On Practicality

Activities varied during the sessions with an emphasis on practical ideas teachers could use immediately in the classroom. At the nutrition session, teachers analyzed cereal box labels to determine sugar content and counted sugar cubes to represent the amount of sugar in popular soft drinks. At the stress management class, teachers monitored their own stress levels by using temperature sensitive patches and received a checklist of stressful events to hand out to their students.

At the last session, the entire group explored fitness as a lifestyle. Participants learned exercises to tone muscles, strengthen heart and lungs, and increase body flexibility.

Evaluations of the workshop ranged from "good" to "excellent." The sessions on stress were rated the highest.

Promising Future

"I'm excited about the potential of these workshops," Michael Holroyd comments. "This concept can be applied in other regions of the state, not to mention other subject matter areas."

Agents from Central Oregon have expressed an interest in organizing a similar program for Fall 1987. In addition, a group of southern Oregon schools recently contacted Holroyd to invite Extension at Oregon State University to participate in an annual wellness training program. ▲

Extension Food And Nutrition Programs—A National Assessment

46 Extension Review

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What is the driving force in food and human nutrition program planning? Which delivery method or material is cited by Extension agents as the most popular? What is the primary method used by agents to evaluate their programs?

Researchers at the Institute for Policy Research and Evaluation, The Pennsylvania State University, obtained the answers to these and other significant questions as a result of their national assessment of Extension's food and nutrition programs. Funded in 1984 by ES-USDA, the study was not of EFNEP exclusively or an impact evaluation of the effects of nutrition programs on clientele. The research objective was to conduct a descriptive study of the content, scope, and extent of Extension programs in food and human nutrition.

Researchers collected primary data from May through July 1985 in 16 states—4 states from each Extension region.

In addition, researchers analyzed the content of nutrition-related state Plans of Work (POWs) from the sample states.

Some Major Findings

Some of the following findings of the study under "Program Planning and Topics:"

- Ninety-three percent of the state specialists and 80 percent of the county agents cited clientele preferences or the expressed needs of clientele as the driving force in their food and human nutrition program planning.
- Health and wellness showed up as one of the three most frequently covered topics in both the specialist and agent databases.

Under "Delivery Methods and Materials" the study reveals the following:

- Fifty-one percent of the agents chose demonstrations as the most popular delivery method. Thirty-seven percent

of agents chose newsletters, and 35 percent and 32 percent, respectively, chose workshops and meetings. Twenty-seven percent of the agents chose one-on-one counseling as their most popular delivery method.

Under "Evaluation and Impacts" the study discloses the following:

The primary method agents report relying on for evaluation is questionnaires.

Also, 75 percent of the specialists reported evaluating at least half of their food and nutrition POWs. Their evaluation methods were primarily those designed to measure educational change or practice change, not changes in end results.

Under "Clientele" the study showed that 57 percent of the agents identified adults with interest in or need for specialized dietary information as one of their three major clientele groups.

The two topics for "Future Research" that both agents and specialists believed would most benefit their food and human nutrition programming efforts were: 1.—the relationship of nutrients to health and disease, including information on weight control and diets to reduce the risk of heart disease and cancer; and 2.—the relationship of food and exercise to health.

Regarding "Appointments," only 18 percent of the specialists in the sample had a joint appointment that included a research component, but 41 percent reported conducting some research.

Conclusions

The study demonstrated the depth and breadth of Extension's diverse activities in food and human nutrition. This diversity, the researchers believe, makes it difficult to document clear-cut, consistent impacts.

Study findings may provide opportunities to strengthen program delivery and the assessment of program impacts in the following ways:

1.—Extension needs to identify its priorities within the food and human nutrition area and, in conjunction with the states, target its efforts toward specific programming areas where there can be realistic achievement of the greatest impact.

2.—Extension may want to place a more direct effort in its programming on the relationships between food, diet, and health. Because of its unique perspective, Extension can provide research-based diet and health information, and family-centered nutrition education.

3.—Extension should examine the possibility of expanding its target audiences in food and human nutrition. Researchers believe that more targeting may be warranted to the elderly, singles, children (particularly "latchkey children") and adolescents.

4.—Researchers feel that agents may need to adopt more sophisticated delivery techniques to reach a more diversified clientele audience.

5.—Local Extension staff need to better understand the linkages between information content, delivery methods, evaluation procedures, and documented impacts.

6.—Ties between Extension personnel and researchers need to be strengthened at both the federal and state levels.

With additional resources directed toward improving delivery methods, and the strengthening of formal linkages to a research base, the study concludes that Extension cannot help but have a positive impact on the health and quality of life of its clientele. A

Issue 2.

Consumers' Concern About the Safety, Composition, and Quality of the Food Supply.

Extension Goal:

To improve the ability of consumers to make informed choices related to food safety, composition, and quality.

Educational Objectives:

1. Consumers, food service personnel and food processors will improve handling and processing practices in order to prevent foodborne illnesses.
2. Consumers and producers will increase their knowledge of the benefits and risks to health from contaminants, additives, and naturally occurring toxicants in food.
3. Consumers will increase their knowledge of food composition, food processing techniques, and food regulations, thereby making informed food management decisions.

Issue 3.

Concerns of Consumers, Producers, Processors, and Food Handlers About the Interrelationships of Producing the Food Supply to Meet Consumers Needs.

Extension Goal:

To improve the knowledge base and understanding of producers, processors, food handlers, public opinion makers, and consumers about the needs of each other in the food supply chain.

Educational Objectives:

1. Producers, processors, food handlers and public opinion makers will increase their knowledge and understanding of laws, rules, and regulations protecting the food supply.
2. Producers, processors, food handlers and public opinion makers will increase their knowledge and understanding of the real and/or perceived needs of consumers and modify their products to help meet those needs.
3. Consumers will increase their knowledge and understanding of the safeguards and requirements used in the production, processing and marketing of food.

Suggestions and guidelines for helping to achieve these goals will be presented at a later date. Comments regarding these issues, goals, and objectives are welcome and should be directed to the Co-chairs of the Task Force: Marilynn Purdie, State Leader Home Economics, CES, Mississippi State University, Mississippi State, Mississippi 39762 or Milton Baldwin, Assistant Deputy Administrator, HEHN, Extension Service, Room 3443-S, U.S. Department of Agriculture, Washington, D.C. 20250-0900.

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